



MAHATMA GANDHI

by Nandalal Bose

FACTS ABOUT INDIA



सत्यमेव जयते

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EXTENSION DEPARTMENT
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PART
ONE

CHAPTER I

LAND AND PEOPLE

GEOGRAPHY

At its broadest extremities, India, which occupies an area of 1,269,640 square miles, covers a fifteenth of the earth's circumference. The Indian Union, which was proclaimed a Republic on January 26, 1950, comprises 27 States and the Andamans and Nicobar islands. The sub-continent has the shape of a triangle with its base resting on the Himalayas in the north. In the extreme south, the waters of the Indian Ocean wash ceaselessly against the Cape Comorin which is situated at the apex. Separated from the mainland of Asia by the undulating Himalayan range, which incidentally has some of the highest peaks in the world, the sub-continent is bounded on three sides by the sea. She shares her frontier, which runs from west to east, with West Pakistan, Turkestan, Tibet, China, Burma and Eastern Pakistan. Her land frontier is 8,200 miles long and her coast line 3,500 miles.

The Indian peninsula which lies north of the equator can be divided into three regions according to physical and geographical conditions :

1. the snow-clad Himalayan range with the beautiful valleys running along it from the vales of Kashmir and Kulu in the extreme north to the frontiers of Assam in the east ;
2. the triangular Deccan plateau in the south with the western and eastern ghats skirting the west and

- east coast and the Vindhya hills at the base; and
3. the Indo-Gangetic plains from west to east which divide the northern from the southern zone.

The Himalayan chain forms a continuous northern boundary of 1,250 miles. The main Himalayas extend from the gorges of the Indus to those of the Brahmaputra with the Everest massif as the world's loftiest range. Many of its passes are higher than the summits of the Alps. This immense rampart has been an important barrier to climatic influences and the movement of peoples. The Brahmaputra, also 1,800 miles long, originates in the western Tibetan plateau of the Himalayas and flows through Assam, watering its fertile rice fields. The pattern of rivers in India is a remarkable physical feature. The Sutlej and the Brahmaputra have long, gently graded courses on the plateau behind the main ranges in which they have cut formidable gorges. The great Indian plain, alluvial in origin, begins in the west as a 300-mile wide belt and tapers gradually towards the east to a width of 90 miles. This great plain is watered by the three main rivers of India—the Indus, the Ganges and the Brahmaputra. The more fertile parts of India are to be found in this region, and a very high proportion of India's population lives here. Parts of the west coast and central India are comparatively less fertile and portions of Rajasthan are almost arid.

South of the river Tapti, the western ghats rise to well over 3,000 ft. They present a remarkably straight and steep face to the Arabian Sea. As far as Goa, they are formed of Deccan lava and intersected by deep canyons. But, further south, they are more rounded and not so high. The eastern ghats are much less continuous and striking than the western ghats and practically disappear between the Kistna and Godavari rivers.

Between the eastern and western ghats lies the Deccan, a region of great swells and arid plateaus broken by low and often craggy hills along the watersheds. The great rivers, the Mahanadi, Godavari, Kistna and Tungabhadra

are sluggish and flow in broad gently graded valleys. Unlike the rivers draining the Himalayas, which are glacier-fed, they are entirely dependent on the monsoon and are practically dry in the hot weather.

CLIMATE

The great Himalayan wall effectively shuts off the central Asiatic air masses from India which thus has its own system of monsoons. There is great diversity of climatic conditions among the various regions of the country. The Tropic of Cancer passes through central India dividing the sub-continent into two climatic zones. One should expect the north to be temperate and south to be arid. But, meteorologically, the Indian year can be broadly classified under three heads :

1. the cold season from November to February, characterized by low rainfall ;
2. the period March to June, generally dry ;
3. the monsoon between July and October, leading to a drop in temperature.

This classification cannot of course account for the extraordinary differences between the climatic zones. It is, however, logical to separate the period between the middle of September to the end of December as a separate season when the south-west monsoon is retreating. South-western and eastern India are more or less monsoon-tropical. The summers, especially in the south, are humid, but the cool afternoon breeze from the sea in the coastal towns and the rivers in the interior makes the heat more bearable. Strictly speaking, there is no cold weather in the south.

The climate is everywhere dominated by the seasonal rhythm of the monsoons and about 85 per cent of the rain comes from the south-west monsoon between June and October. The burst of the monsoon in mid-June is marked, especially on the west coast, by violent, thundery rain storms. The temperature falls rapidly but the relief from the excessive heat is to some extent offset by the unpleasantly high humidity. Central and northern India

have hot dry summers and cold winters. In places, which are away from the hills or the sea, the heat becomes oppressive in May. Great dust storms are frequent in the plains. Humidity except near the sea or the Ganges delta is very low and the landscape takes on a parched brown-grey look. This part of the country is studded with hill-stations at varying altitudes where people often go to escape the discomforts of a trying summer.

RESOURCES

The diverse rock formations of India constitute a rich source of building material. The central part of the peninsula and the mountainous districts have diverse rock strata. Rajputana has pink marble and the Deccan excellent granite. Cream and reddish-brown sandstone is found in north India. Rich deposits of white and grey marble and limestone occur in various parts of the country. Teak, which is another important building material, abounds in the region of the eastern and western ghats. Teak has efficient substitutes in ebony and bamboo.

India has also large deposits of a variety of important minerals. Besides iron, mica and titanium, which occur in abundance, the country has a surplus of bauxite, refractory minerals, steatite, silica, monazite, abrasive and industrial clays available for export. Her reserves of coal, aluminium, gold, chrome ore and the rare earths are just sufficient to meet her own demands.

PEOPLE

India's 362 million people constitute a seventh of the human race. Her population, second only to that of China, is made up of many racial strains. Various groups entered India at one time or the other between the older paleolithic and the historical periods. Because of topographical conditions, the races which came earlier were not annihilated by the new settlers, but every incoming wave of conquerors pushed them down south and eastwards. They still contribute some of the main

elements in the Indian population. The hills and forests provided shelter to a large number of primitive tribes who were left there undisturbed. This probably explains why some of the existing racial types in India retain some primitive strains and have absorbed certain elements from the main divisions of mankind.

The people of India can be roughly divided into six racial groups with nine sub-types: (1) the Negrito; (2) the Proto-Australoid; (3) the Mongoloid; (4) the Mediterranean; (5) the Western Brachycephals; and (6) the Nordic.

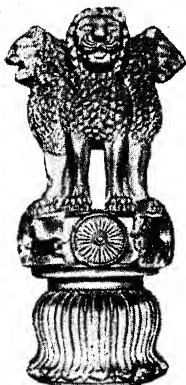
Broadly speaking, the blonde or partially blonde elements are to be found in the mountain valleys of north-western India where they are mixed with Mediterraneans and Orientals. They can be clearly distinguished from the older Palaeo-Mediterranean elements in peninsular India. The primitive, darker elements, which are found everywhere and derive their blood from other strains, especially the Palaeo-Mediterranean, constitute the lower stratum of the population. The Mongoloid who have intermingled with other groups exist in the sub-montane regions of the north and the east.

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Indian history records the rise and fall of dynasties, of theological systems and their philosophy and culture. Underlying the vicissitudes of political and religious fortunes, a clear pattern of unity is, however, discernible. For the first time in India's long history, this unity has been realized.



CHAPTER II

THE STATE

CONSTITUTION

ON January 26, 1950, India's new Constitution, the first charter of her freedom, came into force. It is a comprehensive document comprising 397 articles and nine schedules.

On that day India became a sovereign democratic republic. She continues to be a member of the Commonwealth by choice. The membership of the Commonwealth does not detract from India's sovereignty.

India is a secular State. Subject to public order, morality, health, etc., the people of India are entitled to freedom of conscience and the right to practise and propagate religion. In respect of civic rights, services and obligations, no discrimination is made on grounds of religion, race, caste or sex.

FUNDAMENTAL RIGHTS

The Constitution includes a very elaborate declaration of human rights. It guarantees to all citizens freedom, equality and other rights relating to the freedom of religion, property, culture, education and constitutional remedies. The Constitution also sets out certain Directive Principles which seek to regulate State policy with a view to securing a social order in which social, economic and political justice shall inform the institutions of national life.

FLEXIBLE FEDERATION

For the first time in Indian history, the country has achieved political unity and territorial integrity. India is a federation of States, none of which can secede from the Union. She has a unified administration under a single Constitution.

The Indian Union is a federal structure with residuary authority vested in the Centre. The unity of administration is assured through a single judiciary, uniformity in basic laws, common all-India services and a common official language.

Flexibility is an important feature of the Constitution. It has evolved a simple process of amendment. Furthermore, it enables the federal structure of government to be converted into a unitary system in an emergency. The Central Government can then control all the State Governments and Parliament can exercise the legislative powers ordinarily vested in the States.

The Government of the Indian Republic is a government by the people, both at the Centre and in the States. It is a parliamentary form of government. All adult citizens have the right to vote. This makes India the largest among the existing democracies of the world. Her electorate is estimated to be a twelfth of the world's population, four times the population of the United Kingdom and twenty-five millions more than the total population of America.

Village *panchayats*, functioning as units of self-government in the various States, ensure the democratic character of the constitutional structure.

UNION GOVERNMENT

The head of the Union Government is the President elected for five years by the elected members of both the Houses of Parliament and of the Legislative Assemblies of the States.

The Vice-President of the Indian Union is ex-officio

UNION GOVERNMENT



PRESIDENT

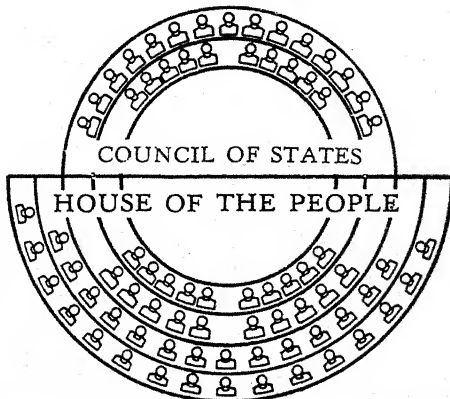


VICE-PRESIDENT

PRIME
MINISTER



Council of Ministers



COUNCIL OF STATES

HOUSE OF THE PEOPLE

STATE GOVERNMENT

(Part A & Part B States)

GOVERNOR

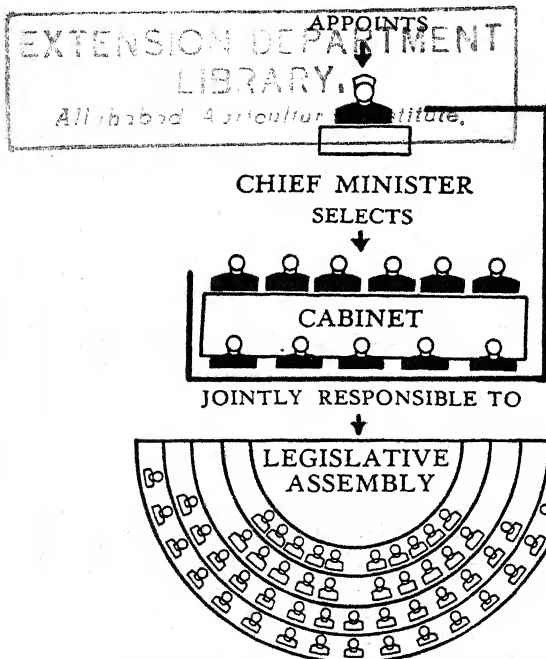
IS APPOINTED BY
PRESIDENT
HOLDS OFFICE FOR
FIVE YEARS



GOVERNOR OR
RAJPRAMUKH

RAJPRAMUKH

APPOINTED IN
ACCORDANCE WITH
AGREEMENT WITH
STATES OR STATES
UNIONS



POWERS OF GOVERNOR OR RAJPRAMUKH

1. The executive authority of the State vests in him
2. Can grant pardon, remit punishment and commute sentences in certain cases
3. Summons or prorogues sessions of the House or the Houses of the State Legislature and dissolves the Legislative Assembly
4. No Money Bill can be introduced in the House nor can any demand for grant be made except on his recommendation
5. Can promulgate ordinances during recess of the Legislature
6. Can return a Bill for reconsideration to the Legislature

Chairman of the Council of States. He is elected by the members of both the Houses of Parliament assembled at a joint meeting.

The real executive of the Indian Republic is the Council of Ministers with the Prime Minister at its head. The Council of Ministers is collectively responsible to the House of the People. The Constitution ensures the leadership and predominance of the Cabinet.

PARLIAMENT

The central legislature is known as Parliament. It consists of two Houses—the Council of States and the House of the People.

The Council of States is a permanent body elected indirectly. A third of its members retire every second year. It has a maximum strength of 250 members. The House of the People consists of not more than 500 elected members, and its life does not ordinarily exceed five years.

STATE GOVERNMENTS

Except in the centrally administered States, the executive authority of a State is vested in the Governor or the Rajpramukh, as the case may be. The Council of Ministers, with the Chief Minister as its leader, aids and advises him.

The Governor is appointed by the President for a term of five years. The Rajpramukhs have to be recognized as such by the President.

In Madras, Bombay, Bihar, Uttar Pradesh, the Punjab, West Bengal and Mysore, the legislature has two chambers while other States have a unicameral legislature. Where it exists, the upper house is known as the Legislative Council and the lower house is called the Legislative Assembly. Where the legislature consists of only one house, it is called the Legislative Assembly.

The Legislative Council is a permanent body. A third of its members retire every two years.

The Legislative Assembly has a maximum strength of 500 members who are elected on the basis of adult franchise for a period of five years.

Except in the States of Tripura, Manipur and Kutch, which are situated on the border, and the small State of Bilaspur, all the Part 'C' States have their own legislature and council of ministers.

Full responsible government has not, however, been conceded to these States. The Centre exercises control over them and the Head of the State, whether he be a Lieut.-Governor or a Chief Commissioner, is responsible to the President for ensuring proper administration in these areas. Whenever differences arise between him and his ministry, he has to refer the matter to the Centre whose decision is binding.

The functions of the Legislative Assemblies in Part 'C' States cover, broadly speaking, all subjects included in the State and the Concurrent Lists. Only in the case of Delhi State, certain subjects* are excluded from the jurisdiction of the State Assembly.

NATIONAL FLAG

The National Flag of India is a horizontal tri-colour of deep saffron, white and dark green in equal proportions. Saffron is at the top, white in the middle and deep green at the bottom. The emblem of the flag is an exact reproduction of the wheel on the capital of the Asoka pillar at Sarnath. It is superimposed on both sides of the flag, and is as broad as the white strip. The wheel has twenty-four spokes. The colour of the emblem is navy blue.

The origin of the tri-colour dates back to 1921, when

* Public order, police, water supply, drainage, electricity, transport and other public works, lands and buildings vested in or in the possession of the Central Government in Delhi or New Delhi.



The National Flag

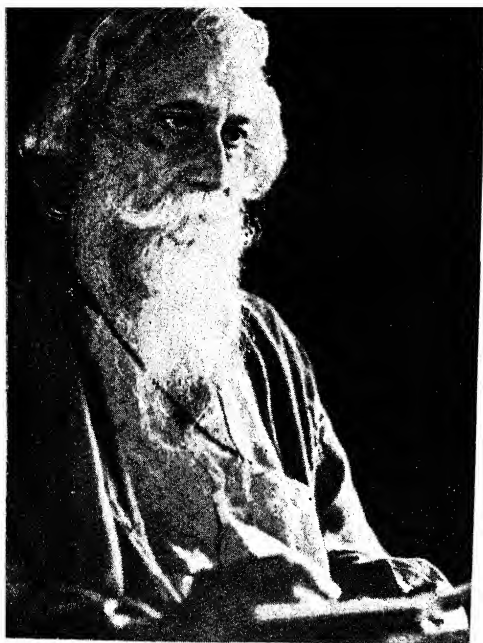
during the session of the All India Congress Committee meeting at Bezwada (now Vijayawada), an Andhra youth presented Gandhiji with a flag made up of red and green; the colours represented the two major communities of India. Gandhiji suggested the addition of a white strip to represent the rest of India's communities and the *charkha* to symbolize progress. In 1931, when the All India Congress Committee officially adopted the tri-colour flag as India's national emblem, it was emphasized that it bore no communal significance and was to be interpreted thus: "Saffron for courage; white for truth and peace; and green for faith and chivalry."

On July 22, 1947, the Constituent Assembly adopted this tri-colour as India's National Flag. The *Dharma Chakra* of Emperor Asoka was adopted instead of the *charkha*. "The wheel," said the Prime Minister, "is a symbol of India's ancient culture; it is a symbol of many things that India has stood for through the ages." The *charkha* had to be replaced because its inclusion entailed the violation of certain heraldic rules.

The colours and their significance remained the same as before. Dr Radhakrishnan interpreted the colours in philosophical terms. The orange colour, according to him, denoted renunciation. White in the centre was light, the path of truth to guide our conduct. The green signified our relation to the soil, "our relation to the plant life here on which all other life depends." The Asoka wheel in the centre is the wheel of the Law of Dharma. "*Satya* or Truth, *Dharma* or virtue," he said, "ought to be the controlling principles of all those who work under this flag. Again the wheel denotes motion . . . the wheel represents dynamism and peaceful change . . ."

NATIONAL ANTHEM

On January 24, 1950, the Constituent Assembly of India adopted *Janaganamana* as the National Anthem. It was composed by the late Rabindranath Tagore in 1912.



Rabindranath Tagore

It was also decided that Bankim Chandra Chatterjee's famous invocation, *Vande Mataram*, would enjoy an equal status.

These two songs vied with each other for the status of the National Anthem. Each had a hallowed history. And each was the work of one of India's greatest writers.

Of the two songs, *Vande Mataram* is the older. It occurs in Bankim Chandra's novel *Ananda Math* published in 1882. The first political occasion on which it was sung was the 1896 session of the Indian National Congress. It was set to music by Rabindranath Tagore. Gradually, the first two words of the song became the slogan of the national movement. In fact it has inspired some of the greatest sacrifices in history. The only difficulty in adopting *Vande Mataram* as the National Anthem seems to have been that it did not lend itself to harmonization.

• Janaganamana



Notation by Herbert Murrill

Janaganamana was described by Mahatma Gandhi as a devotional hymn. It was first published in January 1912 in *Tattvabodhini Patrika* of which Dr. Tagore himself was the editor. The poet rendered it into English in 1919 under the title *The Morning Song of India*. The song was first sung at a political meeting on December 27, 1911, the second day of the Congress session, and struck the audience as distinctive and dignified.

MISSION DEPARTMENT
LIBRARY.

CHAPTER III

INTEGRATION OF STATES

ONE of the major tasks that confronted free India was political consolidation. Before August 1947, there were 552 semi-autonomous princely States which had direct relations with the British Crown. With the lapse of Paramountcy, however, it was left to the rulers to decide the future constitutional status of their States. The map of India looked more like a jigsaw puzzle, the large number of its units skilfully pieced together to produce a picture of spurious unity. On the morrow of freedom, the autonomy of the princely States thus created a problem of vital consequence for the future of the country. India was faced with the threat of being broken up into a large number of independent enclaves, big and small. The Balkanization of the country would have destroyed all prospects of unity and peace in the country, wrecked its economy and undermined its security.

Nurtured in the traditions of imperialism, the rulers of the princely States had been brought up to hamper the growth of the national movement. With the advent of independence, the Government of India suggested that the autonomous States situated in Indian territory should accede to the Indian Union. Sardar Patel, the chief architect of political integration in India, warned the Princes against the consequences of their refusal to co-operate. He said: "I hope the Indian States will bear in mind that the alternative to co-operation in the general interest

is anarchy and chaos which will overwhelm great and small in a common ruin if States and Provinces are unable to act together in the minimum of common tasks."

The Princes acted with foresight and political wisdom. They did not cling to their time-worn treaties with the British, so that, in January 1948, Sardar Patel could tell the country that all the States contiguous to Indian territory, except Hyderabad and Junagadh, had acceded to the Indian Union.

The State of Hyderabad, which is situated in the heart of the Deccan plateau, did not, however, accede immediately. Effective power had passed over into the hands of a small band of extremists called Razakars who sought to buttress feudal elements in the State through a campaign of terror. The Government of India's "police action" was bold and swift. In five days, normal constitutional authority was restored in the State and the Nizam was once more free to exercise his will. Subject to ratification by the people of his State he decided to accede to India.

Once all the States had rallied under the national flag, the Ministry of States of the Central Government set to working out a plan of unification. Most of the States were too small to be governed by an independent administrative and political unit. Consequently, except in the case of a few bigger States like Mysore, the people had for a long time been denied the benefits of large-scale economic organization and their standards of life were lower than in the rest of India. Also, anachronistic inter-State custom barriers stood in the way of the free flow of goods from one region to another.

A two-fold reform was, therefore, suggested to end this state of affairs. The first stage was the consolidation of the princely States into viable economic and administrative units. This was done in three ways: (a) some of the States were merged in the adjoining provinces; (b) a few States were grouped into Unions of States; and (c) others were taken over to be administered by the Central Government. The States of Jammu and Kashmir, Mysore

and Hyderabad were, however, allowed to continue as separate units.

This remarkable change started with the Chattisgarh States which merged with the province of Orissa on January 1, 1948. The last State to merge was Cooch-Bihar which joined West Bengal on January 1, 1950. In all, 216 States with a total area of 108,739 square miles and a population of 19.158 millions were involved in this process of merger.

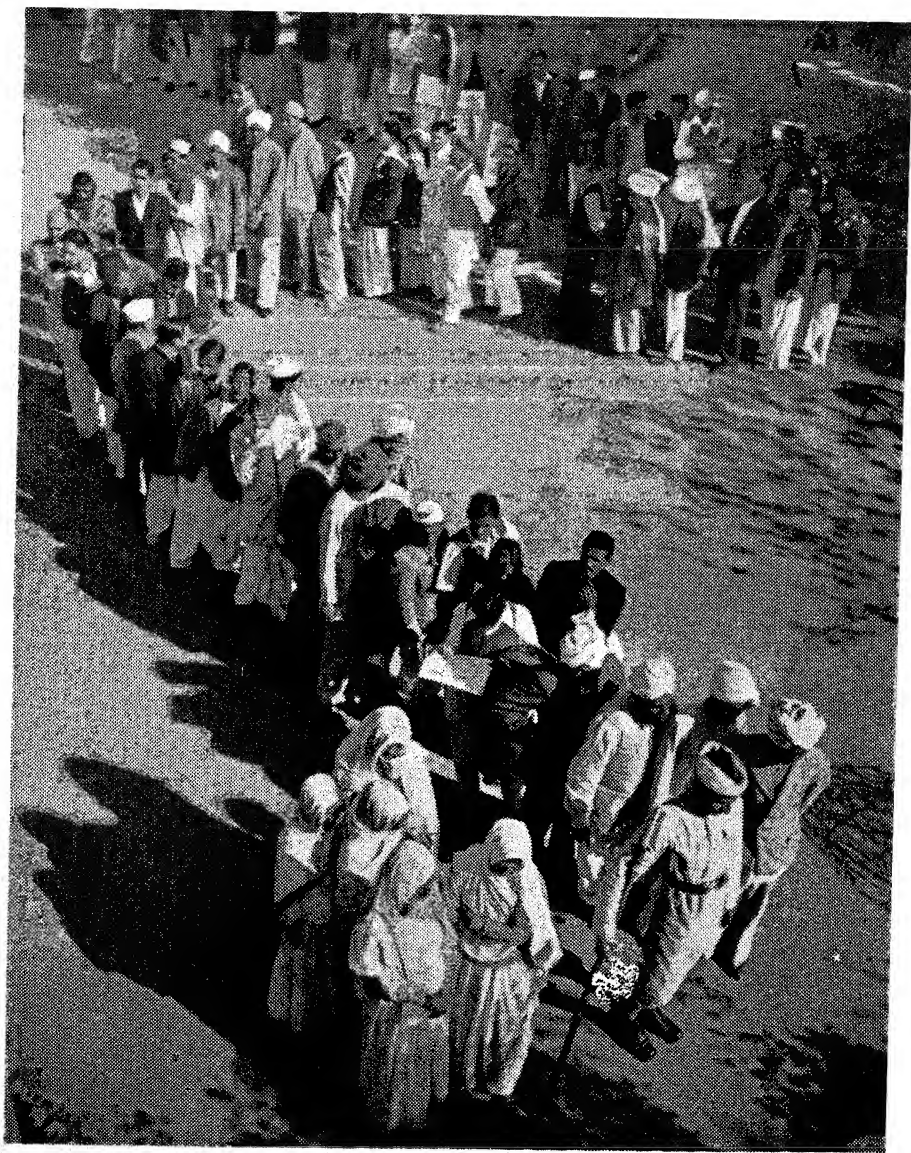
The States taken over as Centrally administered areas numbered 61 with an area of 63,704 square miles and a population of 6.925 millions. These have been formed into seven Centrally administered areas. Of these, three will now have legislative assemblies with popular ministries responsible to them.

The first Union of States was born when 217 Kathiawar States and hundreds of estates joined to form a new union called Saurashtra. Altogether, 275 States were integrated into five such Unions of States, covering an area of 215,450 square miles with a population of 34.7 millions.

The second stage in the reform was the introduction of democratic institutions in these States which had hitherto been governed by autocratic rulers. Immediately after January 26, 1950, popular governments were formed in all the States, and in the recent elections the people of the States elected their representatives to the various legislative assemblies.

In less than two and half years after freedom, the process of territorial integration was complete. This ingenious reform, boldly conceived and swiftly executed, ended several anachronistic sovereignties and exorbitant princely privileges. In the entire history of the world, there has been no comparable revolution, where casualties, both of men and values, were so few.

The reform was well received by the subjects of the princely States. It conferred on millions of people the benefits of a larger economic and administrative unit and, above all, the Rule of Law.



Going to the polls

CHAPTER IV

FIRST GENERAL ELECTION

By entitling every adult to the right to vote, India's Constitution has enfranchised 175 million Indians. This figure, which represents a twelfth of the world's population, includes 75 million women.

The first State to go to the polls was Himachal Pradesh in October 25, 1952 and elections in 25 other States were held soon after. By March polling for the lower houses was over. Unprecedented in the history of any other democratic country in the world, these elections were held to fill 3,772 seats in the House of the People and the Legislative Assemblies of the States and 546 seats in the upper chambers in the country. In all 224,000 polling booths were provided in 3,104 constituencies. Of these, 2,438 were single-member constituencies, 664 constituencies elected two members each, and two constituencies elected three members each. There were altogether three electoral colleges, consisting of 30 members each to nominate their representatives to the Council of States. The constituencies, where electors belonging to the Scheduled Castes or Scheduled Tribes were in a majority, elected one member either from the Scheduled Castes or the Scheduled Tribes, as the case may be, to fill seats reserved for them in the legislatures, in addition to a member for the non-reserved seat.

Of the 17,450 candidates, who contested the elections, 1,871 were for the House of the People. Fifty-one women

stood for election to the House of the People, 216 for the Legislative Assemblies in the States and 15 for the Council of States. Most of the candidates belonged to the 14 All-India parties, including the Indian National Congress, the Socialist Party, the Jan Sangh, the Hindu Mahasabha, the K.M.P.P. and the Communist Party of India. The rest sought election as independent candidates or as members of State parties.

About 50 per cent of the enlisted voters exercised their franchise, and in Travancore-Cochin the percentage was as high as 70.8. Belying popular forecasts, the elections aroused more enthusiasm in the rural areas, where the percentage of polling was higher than in the urban areas. Women exercised their right of vote in very large numbers and, in some cases, they outnumbered men. Hundreds of lame, blind and sick voters, some of whom had to be carried to the polling stations, also participated in the elections.

Despite their colossal magnitude, the elections passed off peacefully. The cost of the elections has been estimated at Rs. 100 million. This works out to less than a rupee per head.

One of the important features of the elections was the return of 115 women, of whom 19 were elected to the House of the People and 14 to the Council of States and the rest to the State Legislatures.

CHAPTER V

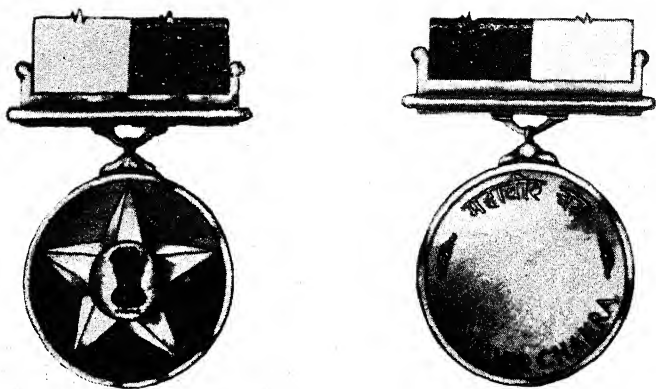
DEFENCE

THE Indian Defence Forces are made up of three services—the Army, the Navy and the Air Force. Their duty is to protect the country from external aggression and maintain conditions conducive to peace and prosperity. The Ministry of Defence of the Government of India co-ordinates the activities of the various defence organizations and interprets the decisions of the Government on matters of policy. It also supervises the work of the ordnance factories, the Directorate General of the Armed Forces Medical Services and the Defence Science Organization.

THE ARMY

The Indian Army has now been nationalized. It now consists entirely of Indians, from the Commander-in-Chief down to the junior-most subaltern. The only exceptions are a few British officers with specialized technical knowledge. Recruitment is open to all Indian nationals and is based strictly on competitive merit and physical fitness.

The Army figures most prominently among the Armed Forces of India. Impartial military observers were deeply impressed by the conduct of the Indian Army during the two World Wars and it has been described as one of the best fighting forces in the world. The partition of India and the catastrophes following it in quick succession were all in the nature of a trial of strength for the Indian Army which was still in a formative stage on the morrow of freedom.



The Mahavir Chakra, front and back

Even while the reconstitution of the Army was in progress, communal disturbances broke out in the Punjab and Delhi. Besides helping to curb disorders, the Indian Army had to supervise the movement of millions of refugees from both sides of the Indo-Pakistan border. Simultaneously, it had to arrange food convoys and provide military escorts to refugee trains.

While the Army was still busy in the Punjab, it was called upon to defend Kashmir against the raiders. For fifteen months Indian troops fought against the invaders consisting of both tribal irregulars and units of the Pakistan Armed Forces and succeeded in meeting the danger.

Besides operational successes in Kashmir, the Indian Army established a record for armoured warfare when its light tanks drove through the snow-capped, boggy tracks and over rock-like glaciers to Zojila at an altitude of 12,000 feet, and foiled the plans of the enemy.

While the Kashmir operations were still in progress, political conditions in Hyderabad became menacing. Once again, Indian troops were called to duty. In five days Hyderabad was freed from the grip of the Razakars and peace and order restored within the State.

SERVICE TO THE PEOPLE

The Indian Army has also been brought nearer to the people, and its officers and men have done conspicuous humanitarian work during the past four years. For instance, in Assam, the Punjab, Kashmir and Madras, where unprecedented natural calamities had wrought havoc among the people, the troops patrolled the affected areas, rescued marooned people and rendered medical aid. In the inaccessible areas of northern Assam paratroopers were dropped to rescue people from collapsing houses and flooded villages. The Army engineers repaired bridges and roads in flood-stricken areas and kept the lines of communication open.

Similarly, in Kashmir the Indian Army made communications easier in several areas which had previously been cut off from the rest of the State. Roads, bridges and mile upon mile of tracks have been constructed in Kashmir by Indian troops.

TERRITORIAL ARMY

India has a Territorial Army with a target strength

Tank crew learning to climb steep hill



of 130,000. Essentially a reserve force, its primary purpose is to associate the people with the defence of the country. As a second line of defence, it is designed to protect the home front, keep supply and communication lines open, man the coastal defence and assist the civil administration in the maintenance of law and order.

ARMAMENTS

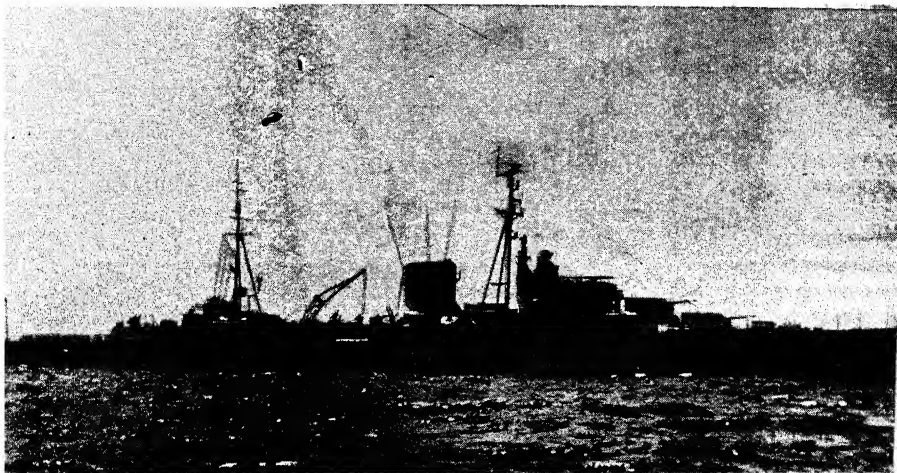
India's ultimate objective is to achieve self-sufficiency in the supply of arms and armaments. Two factories, the Jerrycan Factory at Wadala and the Barrel Factory at Bhusawal, have been taken over. They now function as ordnance factories and their present output represents their maximum capacity. A prototype-cum-machine tool factory has been set up at Ambarnath and is expected to go into production soon.

To promote research in the country's defence requirements, a Defence Science Organization has been created and a Scientific Adviser appointed to the Ministry of Defence. This body is entrusted with the task of utilizing the results of modern science for the benefit of the Services. It works in close co-operation with other organizations engaged in scientific and industrial research. An institute of Armament Studies which will conduct tests on the efficacy of weapons and equipment will also be established.

THE NAVY

India could hardly claim to have a navy of its own when independence came; it was then no more than an adjunct to the Royal Navy. August 15, 1947, found this small force further reduced owing to partition in which roughly a third went to Pakistan together with three of the most important naval establishments. What was left was totally inadequate for the defence of a coast line extending over nearly 3,500 miles.

India had therefore, not only a great deal of leeway to make up in developing her Navy, but she had also to



INS, DELHI, the Flagship of the Indian Navy

begin almost from scratch by building up her naval establishments. Important among the other problems were the modernization of armament and equipment, the reorientation of training methods and, above all, the gradual nationalization of the Service.

The Indian Navy has completed the first phase of its expansion programme. It now comprises one cruiser, one destroyer flotilla, one frigate flotilla, one mine-sweeping flotilla and a number of auxiliary vessels. The emphasis today is on sea and shore training for which existing establishments are being expanded and new ones opened.

Plans are complete for setting up a Naval Aviation Branch and arrangements have already been made to establish a Fleet Requirement Unit at Cochin.

Naval officers are undergoing pilot training in India and the United Kingdom. The training establishments at Jamnagar and Lonavla were expanded, and new training centres opened at Cochin and Vishakapatnam. The latter has, for three years, been turning out boy ratings, who, on the testimony of their training officers of the Royal Navy, can hold their own against any ratings of the same class in any navy. The Cochin centre has had a large number of direct entry officers and ratings and is now the largest

naval training centre in the country with courses in seamanship, gunnery, signals, torpedo and anti-submarine, supply and secretariat and cookery.

In January 1949, the Indian Military Academy at Dehra Dun was reorganized, and a Joint Services Wing set up to give combined basic training to future officers of all the three Services. The naval cadets from the Joint Services Wing, after finishing a combined course for two years, are sent to the United Kingdom for further training which extends over four to six years.

THE AIR FORCE

Like the Army and the Navy, the Air Force was also adversely affected by the division of India. The withdrawal of R.A.F. units with their British staff created unforeseen complications. Also, most of the permanent Air Force stations, situated as they were in the north-west of undivided India, fell to the share of Pakistan. Thus, partition suddenly drew asunder the well knit, balanced and operationally proved Air Force, which India had built up in the course of fourteen long years.

In 1947, Indian airmen were called upon to lend a helping hand to the Army in evacuating refugees from West Pakistan to India and they did magnificent work. Not only did they remove thousands of them to places of safety, but dropped large quantities of food and other supplies for displaced persons stranded in isolated pockets during the Punjab holocaust, as well as for the homeless people marooned by the floods in East Punjab.

This was immediately followed by an unexpected call to action in Kashmir. Despite unfavourable flying conditions and mountainous terrain, the I.A.F. carried out some of the most difficult tasks during the Jammu and Kashmir operations. From the besieged town of Poonch alone nearly 35,000 refugees were flown out to places of safety. While flying to Leh, the Dakotas negotiated heights of 20,000 feet and over with improvised flying devices.

The Indian Air Force is just over nineteen years old. It is a compact force of no mean striking power for its size. During its short existence, the Indian Air Force has created



Tempests being loaded with rockets

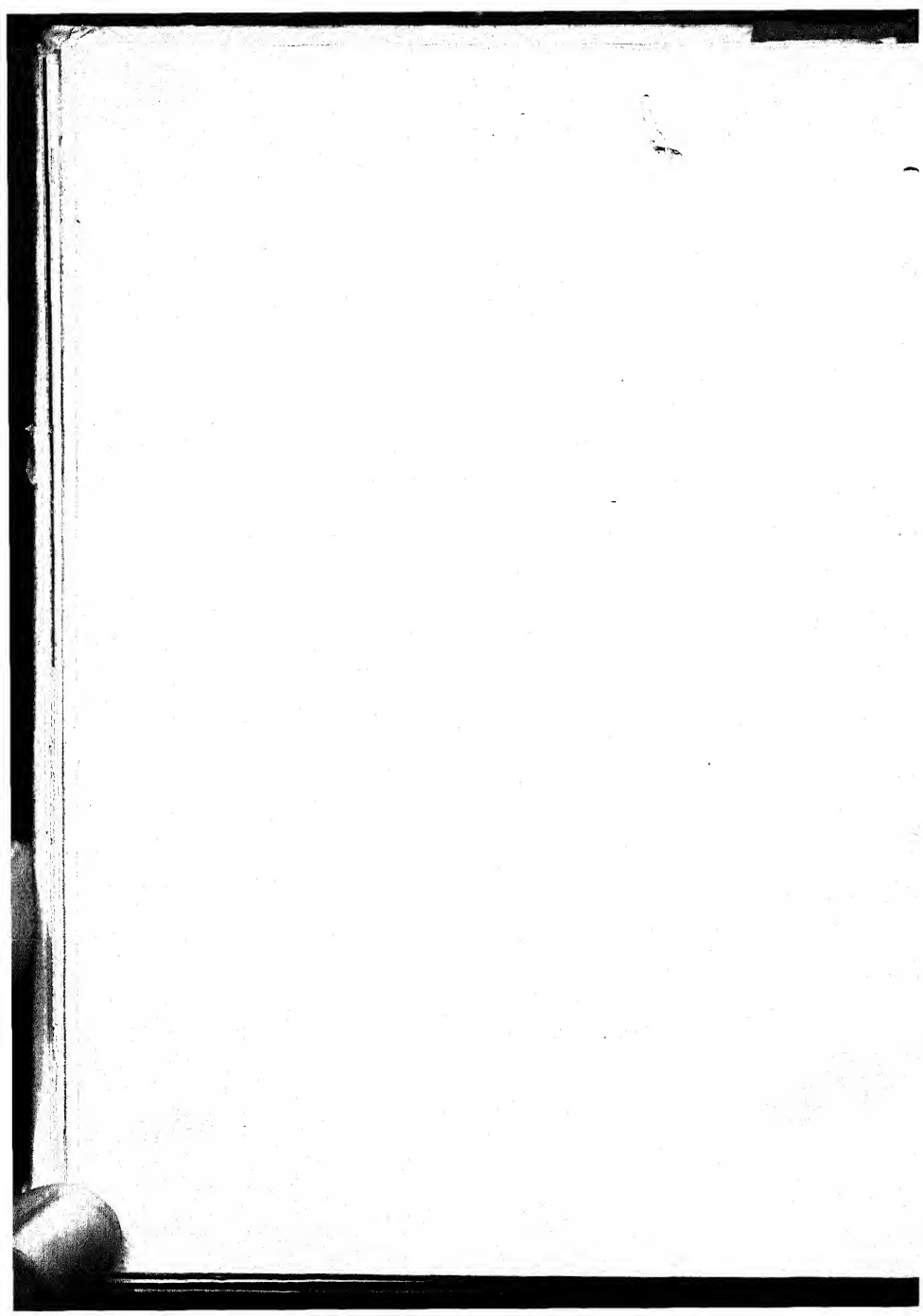
its own tradition of daring and skill and of service and loyalty.

Efforts are being made to modernize the I.A.F. and it has already acquired some jet-propelled Vampires of the latest design. A new general reconnaissance unit has been raised, and another has been equipped with four-engined heavy bomber Liberators. Communication units have been formed to provide national leaders and high officials facilities for air travel and to meet other urgent air-lift requirements. Air courier services, which link all major Air Force stations in India, have been established. A trans-continental service, functioning thrice in two months, plies between India and the U.K. to train air crew in long distance flying and transporting equipment.

In the matter of training also the I.A.F. has made rapid strides. The Flying Schools at Ambala and Jodhpur and the Initial Training Wing at Coimbatore have been re-organized into two full-fledged Academies for training pilots. A Technical Training College, which is the only institution of its kind in India, has been opened near Bangalore, combining engineering courses for officers and apprentices. Further, the Air Navigators' Training School at Jodhpur seeks to overcome the present shortage of navigators in the I.A.F. A Flying Instructors' School, an armament practice wing and a Paratroopers' School are the other links in the chain of the I.A.F. training establishments.

A photographic aerial survey unit has recently been added to the I.A.F. Equipped with modern aerial cameras and other apparatus and staffed by trained aircrew and photographers, the unit will undertake photographic aerial survey of various parts of India for the production of new maps and modification of old ones.

PART
TWO



CHAPTER VI

NATIONAL INCOME

A PROPER assessment of the national income of a country and its distribution among the various sections of society is essential for any economic planning. Unless it is known how the income of a country is distributed, any proposals for taxation are likely to be arbitrary. If the higher income groups claim a large share of the national income, direct taxes should form the principal source of revenue. If, on the contrary, the incomes of the upper and the lower middle classes constitute a higher proportion of the national income, a higher rate of indirect taxation will be justified.

In August 1949, for these and other reasons, the Government of India appointed a committee of experts to prepare a report on India's national income and other related statistics. They were assisted by a team of foreign experts and the National Income Unit of the Government of India. The report, which was ready early in May 1951, is the first of its kind in India; it gives detailed figures regarding the elements that go to make up the national income. The main sources of consumer income, occupational distribution, the net output per engaged person, the Government's share in domestic output, the relation of income to consumer expenditure are the heads for which detailed statistics have been given.

Several difficulties were met with by the Committee. Quite often, they came up against a dearth of data, illiteracy of a large proportion of the population and the

TABLE 1: DISTRIBUTION OF WORKING FORCE

Census subclasses	Principal earners plus their working dependents		Principal earners plus half their working dependents	
	Number in thousands	Percentage of total population	Number in thousands	Percentage of total population
1	2	3	4	5
I. Exploitation of animals and vegetation ..	90,537	68.2	81,550	67.9
II. Exploitation of minerals ..	633	0.5	589	0.5
III. Industry ..	18,019	13.6	16,245	13.5
IV. Transport ..	2,448	1.8	2,269	1.9
V. Trade ..	8,250	6.2	7,706	6.4
VI. Public force ..	1,909	1.4	1,847	1.5
VII. Public administration ..	1,697	1.3	1,638	1.4
VIII. Professions and liberal arts ..	5,044	3.8	4,673	4.0
IX. Domestic service ..	4,194	3.2	3,533	2.9
Total :	132,731	100.0	120,050	100.0

TABLE 2. NET OUTPUT PER ENGAGED PERSON IN THE INDIAN UNION : 1948-49

Items	Net output (in abja rupees)	Number of engaged persons (in lakhs)	Net output per en- gaged person (in thousands of rupees)
1	2	3	4
1. Agriculture
2. Mining, and factory establishments
3. Small enterprises
4. Total of mining, manufacturing and hand trades
5. Railways and communications
6. Banking, insurance; other commerce and transport
7. Total of commerce, transport and communications
8. Professions and liberal arts
9. Government services (administration)
10. Domestic service
11. House property
12. Total of other services
13. Net domestic product at factor cost

abja = 100 crores = 1 milliard = 1 U.S. billion = 10. Also, lakh = 100,000.
Rs. abja = £75 million pounds sterling = \$210 million (U.S.).

absence of accounting habits among small traders. In many parts of the country, subsistence-farming is the rule. The produce of the cultivator which is consumed by him and his family never reaches the market. Further, there is no differentiation of functions in Indian agriculture. Transport, marketing and other functions related to agricultural production devolve on the cultivator himself. Indian industry is characterized by a similar absence of differentiation of functions. Consequently, the usual industrial classifications used in other countries in the computation of national income do not hold good in India.

In calculating the national income, the incomes of the following factors were considered individually, and added up to arrive at the total: agricultural and allied products, industries and factories, fisheries, the mining industry including small enterprises, the liberal arts, government services, the expenditure of Government departments and enterprises, and domestic workers. The distribution of the working force among the various occupations was also taken into consideration. The sum of the net output of all these sectors of the economy gives the net domestic product at "factor cost," that is to say, by adding up the incomes received by the various factors of production, such as capital, labour, etc. The national income for 1948-49 was estimated at Rs. 87100 million.

OCCUPATIONAL BREAKDOWNS

There are some interesting breakdowns given in the report. For instance, in agriculture and the allied occupations, the value of the services performed by the cultivator on his own account, such as transport and marketing together with the value of his output, constitutes 48 per cent of the national income. The contribution of small enterprises in industry was found to be five times that of large enterprises. In fact, the former accounts for more than 61 per cent of the net domestic product. The net output per engaged person is about Rs. 660 and the averages of income for some of the professions are as follows:

Agriculture (Rs. 500), Mining and Factory Establishments (Rs. 1,700), Commerce, Transport and Communications (Rs. 1,600) and Government services (Rs. 1,300). Finally, the consumer expenditure on food was nearly 58 per cent of the national income. A large outlay on food is, however, characteristic of all under-developed economies.

CHAPTER VII

1951 CENSUS

ENUMERATION under the 1951 Census commenced on February 9, 1951, and was concluded on March 3, 1951. The operations covered the entire country except Jammu and Kashmir and the Part 'B' tribal areas of Assam. About 600,000 enumerators visited 64.5 million houses to collect detailed information. The Census estimated the total population at 356,829,485 of whom 183,305,654 were men and 173,523,831 women.

The Census operations are expected to cost the Government Rs 15 million. The major share of the money was spent on the tabulation of data, for the task of enumeration itself was done by honorary workers from the staff of State Governments and local bodies.

The 1951 Census differs from the earlier ones in one important respect. It does not divide the population according to religion and caste. Instead, it employs functional categories. The population has thus been divided into the following "livelihood classes."

AGRICULTURAL

- (a) Cultivators of land, wholly or mainly owned by them, and their dependents;
- (b) Cultivators of land, wholly or mainly unowned, and their dependents;
- (c) Cultivating labourers and their dependents;

- (d) Non-cultivating owners of land, rent receivers and their dependents.

NON-AGRICULTURAL

This category comprises people (and their dependents) who derive their principal means of livelihood from:

- (e) production other than cultivation;
- (f) commerce;
- (g) transport;
- (h) other services and miscellaneous sources.

A National Register which will contain the names of all citizens, town and village-wise, is being compiled. The Register, which will be one of the bulkiest documents in the world, will provide valuable data about every individual who has been enumerated. It will also include useful information regarding displaced persons and backward classes. This report will prove invaluable for social and economic enquiries.

CHAPTER VIII

FIVE YEAR PLAN

WHILE India's population had increased by 52 per cent during the course of five decades, the increase in agricultural and industrial production was less than proportionate. At the end of the British period, the Indian economy was essentially retrogressive. The level of consumption, private incomes and savings were all extremely low. Although organized industry received a fillip during World War II, it still employed only 2.6 million workers. Shortages were universal, there was not enough of food to go round, not enough houses to meet the needs of an expanding community. The prices of essential commodities were rising steadily. There are few upheavals in Indian history which have caused so much damage to her economy as the partition of India. While she retained 82 per cent of the pre-partition population, she received only 69 per cent of the arable land under rice, 66 per cent under wheat and 69 per cent of the total irrigated area of undivided India. At the same time, driven by violence and fear, 7.5 million people left their homes in Pakistan. They had to be found employment or set up in business. All this cost time and money—both badly needed for economic development.

Basically, the Indian economy is not yet able to meet the needs of a growing population. Before any real increase in the standards of life becomes possible, agriculture must be rationalized and industry put on more secure

foundations; and a better relation between the two spheres so ordered that opportunities for employment in industry would grow, and relieve chronic under-employment in agriculture. Immediately after independence, the State and Central Governments drew up several blue prints of development, but it was soon realized that there were too many plans and too little money with which to accomplish them. The need thus arose to assess the country's resources, and draw up a list of priorities in which every scheme was placed in the order of its importance.

The Planning Commission was therefore appointed in March 1950, and asked to draw up a plan which would lead to the "most balanced and effective use of our national resources." The first problem that confronts every planner is that of limited resources and competing objectives. All economic activity implies choice. For example, the planner may have to decide whether, with a limited supply of money, the country should dam the course of a river and tap its power potential, or alternatively put up a factory to produce consumer goods. In the long run, a multi-purpose project would irrigate more land, increase the food supply and the power available for industrial undertakings. The power project, however, might force society to refrain from consumption for a long time, and the labour force employed on it would be constantly drawing upon the society's supply of consumer goods without adding to it. A large and immediate increase in consumption goods and a high rate of capital formation cannot, therefore go together. At each stage, it becomes necessary to choose between higher standards of consumption now and those in the future. In a country like India, where the rate of saving is very low, a high rate of capital formation would lead to widespread suffering. But any solution which seeks to increase the national income would require that people abstained from excessive consumption now so as to be able to build up enough capital for the future. And if this were not done, it might not be

possible to maintain even the present standards of consumption.

The Planning Commission has estimated the resources available for the public sector during the five-year period and indicated a list of priorities, *i.e.*, items of expenditure in the order of their importance for purposes of development: (1) The programmes in which a beginning has already been made should first be completed. This includes the rehabilitation of displaced persons. (2) The production of food and raw materials should be increased over a relatively short period. (3) Schemes which will help to develop the material and technical resources and enlarge the scope of employment should be implemented. (4) The progress that has already been made in the sphere of social services should be consolidated and provision made for gradual expansion. (5) A provision should be made for more adequate administrative and social services, and the less developed States should be developed more rapidly. Most of the schemes envisaged by the Planning Commission and included in the Five Year Plan are already under operation. The work of the Commission was largely one of consolidation; the schemes and blue-prints of the Central and State Governments were brought under a single plan and the priorities determined in the light of their urgency and available resources.

The Five Year Plan involves a total outlay of Rs. 17,930 million on development in the public sector. The plan is divided into two parts. The first part involves an expenditure of Rs. 14,930 million and is expected to restore pre-war conditions of supply in essential consumer goods by the end of 1955-56. The second part of the plan involves an additional expenditure of Rs. 3,000 million and envisages a slightly higher rate of development during the next five years. The Planning Commission feels that the second part of the plan can be taken up as sufficient external assistance became available. A number of these schemes are already being executed, and some of them come under

the Colombo Plan on which the Five Year Plan represents an advance.

AGRICULTURE

The emphasis of the Draft Plan is on agriculture and irrigation. At the present rate of increase in population, India should have another 26 million mouths to feed by the end of 1956. Assuming a daily cereal consumption of 13.67 oz. she would need to produce another 7.2 million tons of food-grains before she could dispense with imported supplies. Considering the country's overall food requirements, the rationing commitments of the States and the prospects of increased internal production and procurement, three million tons of food-grains should be imported annually. In exceptional years, however, the imports may have to be larger. The Commission also recommends the additional production of 2.1 million bales of jute, 1.2 million bales of cotton, 0.375 million tons of oil-seeds and 0.69 million tons of sugar during the five-year period. While expectations regarding the increase in the production of commercial crops are likely to be fulfilled, positive measures of assistance to the farmer will be required to step up the production of food-grains. The Commission has proposed several methods by which another 7.2 million tons of food-grains could be produced during the five-year period. They include major irrigation projects, land improvement and reclamation, manure, fertilizer and seed distribution schemes.

POWER AND IRRIGATION¹

The first part of the Five Year Plan contemplates an expenditure of Rs. 4,504 million on irrigation and power schemes. The total estimated cost of these projects is over Rs. 7,290 million of which Rs. 1,380 million have already been spent. By 1956, the projects are expected to irrigate an additional area of 8.8 million acres and generate extra

¹ See Ch. 19.

power amounting to 1.1 million kilowatts. When these projects are completed, the area under irrigation will increase by 16.5 million acres and power generation by about two million kilowatts.

INDUSTRY

The Planning Commission has laid down detailed objectives for industry during the five-year period: (1) It should meet the extra demand for industrial products arising from the implementation of the schemes for agricultural development and the expansion of irrigation and power supply. (2) Certain producer goods industries, such as jute, and consumer goods industries like cotton textiles, sugar and soap will be required to produce to capacity. (3) Basic industries producing pig-iron, steel, heavy chemicals, etc., should expand their capacity. (4) Industrial units on which some capital expenditure has already been incurred should be completed. (5) Drawbacks in existing industries should be removed. In consultation with the main industries concerned, the Commission has accordingly drawn up an expansion programme in which production levels, expected to be fulfilled by 1956, are set out for each industry. The Commission has emphasized the importance of both small-scale and large-scale industries. Small-scale industries are favoured in view of the prevailing scarcity of capital, the need for relieving middle class unemployment and the desirability of decentralizing industry.

SOCIAL SERVICES

Before the advent of political freedom, social services in India had been badly neglected. Literacy never rose above 15 per cent during the British period. For decades, India has been a helpless witness of the tragedy of her children succumbing to malaria, tuberculosis, cholera, plague and smallpox. The Government, then in power at the Centre, had a single department for education, health and lands and only a very small proportion of the

budget was spent on hospitals and health education. But India's leaders recognize that the responsibility that freedom has brought rests squarely on their shoulders. The inadequacy of funds has, of course, been a great handicap, and for this reason several schemes are being held up. Nevertheless, the extent of social services has increased considerably since independence. A limited scheme of social insurance for industrial workers was recently initiated by the Government.² The Planning Commission has suggested that the existing schemes should be consolidated and provisions made for a modest expansion.

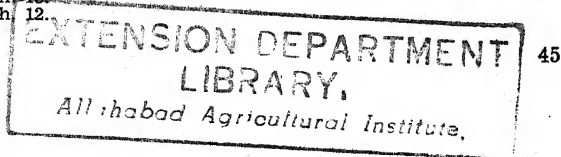
	1951-53	1951-56
	(in millions of rupees)	
Education	445	1,231
Health	337	8,361
Housing	95	228
Labour and labour welfare ..	25	67
Amelioration of backward classes ..	70	180
	<hr/> 972	<hr/> 2,542

SOURCES OF FINANCE

Where are the finances to come from? According to the Planning Commission, the budget is expected to yield a revenue surplus of Rs. 1,300 million during the five-year period.³ Other sources include the development fund available from the revenue account of the annual budget, public loans, small savings and contributions from the railway development fund. In all, the total resources at the disposal of the Centre will amount to Rs. 6,410 million, while the funds that the States can raise is estimated at Rs. 4,800 million. The increased revenue of the States will come from land taxes and estate duties, sales tax, betterment levies, etc. This still leaves a gap of Rs. 3,720 million. The

² See Ch. 15.

³ See Ch. 12.



"counterpart" funds of the u.s. food loan to India are also being used to finance development. These funds are the rupee proceeds from the sale of u.s. wheat in India. Canada and Australia have also promised assistance under the Colombo Plan. If further external assistance is not available, the Government will, however, be compelled to draw from the Sterling Balances to the extent of Rs. 2,900 million. The Commission feels that raising funds for development through deficit financing should be avoided unless the need for it becomes imperative in the interests of development. In such an eventuality the Commission feels that the suffering which the method of deficit financing would entail is to be preferred to the continuance of low standards of living. For the duration of the Five Year Plan, prices are bound to rise owing to the high level of expenditure by the Government. The sterling balances could, of course, be used to import consumer goods to keep domestic prices reasonably low and the resulting strain on the economy thus partially relieved. But this will be possible only if foreign aid were forthcoming.

FOREIGN CAPITAL

In view of the inadequacy of domestic savings, the Planning Commission has recommended that the inflow of foreign capital should be encouraged. With that end in view, it has recommended that Indian and foreign capital should collaborate in new ventures. The Government has accordingly laid down generous conditions to facilitate the flow of foreign capital.

1. No discrimination will be made between Indian and foreign undertakings ;
2. reasonable facilities will be given for the remittance of profits and the repatriation of capital ; and
3. fair and equitable compensation will be given in the event of nationalization.

Some foreign concerns have already been set up in India in partnership with Indian firms.⁴

THE SIX YEAR PLAN

At a recent meeting of the Commonwealth Consultative Committee held in Karachi, India presented a revised six-year development programme for incorporation in the Colombo Plan. The revised plan envisages an outlay of Rs. 23,330 million, Rs. 4,930 million more than that estimated by the Draft Five Year Plan. The increase in outlay does not, however, represent an increase in the cost of schemes. It only makes allowance for the cost of operating these schemes during the sixth year, and provides for any new schemes that may be introduced.

The new plan provides for the expeditious execution of the river valley projects at an additional cost of Rs. 500 million. The extra expenditure on the revised plan is to be met from internal resources. When the development projects envisaged under the recently concluded Indo-U.S. Technical Co-operation Agreement become integrated with those under the Colombo Plan the expenditure on India under the latter will increase to Rs. 2,500 million.

⁴ See Ch. 11.

The figures relating to the expenditure on the river valley projects and the resultant benefits have been revised since the Draft Plan was published. Later figures can be found in Ch. 16.

CHAPTER IX

COMMUNITY PROJECTS

THE idea of the Community Development Projects was inspired by the success of the Etawah experiment in U.P., the Sarvodaya Scheme in Bombay and the Firka development programme in Madras. For instance, the U.P. Government selected certain villages for intensive development, and inaugurated the Mahewa Pilot Project in 1948. Concerted attempts were made to increase the productivity of land and labour and promote public health and education. Within a few years, remarkable results had been achieved. The increase in the yields of wheat and potato crops was heartening, and the literacy drive had also evoked ready response.

The Community Projects Programme seeks to develop selected groups of villages into a closely integrated rural community, equipped with the minimum amenities of modern life. In the initial stages, the State will foster the conditions necessary for economic reconstruction, but it is ultimately upon the co-operation of the people that the success of the plan will depend. To begin with, the outlay of the Government on the Community Projects will stimulate activity, create fresh sources of income and add to existing incomes. This is bound to lead to secondary investment in the private sector, and it is hoped that the projects begun with public funds will be sustained by private means.

Fifty-five projects have been launched in selected areas in the various States of India. They seek to confer

a variety of benefits on 12 million people scattered over 165,000 villages. Each project area covers about 300 villages with a total population of 200,000 and a cultivated area of 150,000 acres. At the end of three years the Government hopes to withdraw from active association in the plan.

Primarily, these projects aim at bringing about social awareness in the Indian village which is an essential condition of all collective action. For generations now, there has been a gradual exodus from India's villages. Farmers and sons of farmers have left the land in search of gainful employment in the cities. This migration cannot be sufficiently justified by any disparity in the incomes from rural and urban occupations. Mostly, it is owing to the fact that India's growing population has had to fall back on the land whose productivity has slowly declined.

The lack of proper means of access to the world outside has been to a great extent responsible for the backwardness of the Indian villager. Though the permanent way does serve rural areas, some of the up-country villages are necessarily dependent upon roads. In most places, these roads are in a very bad state of repair and during the monsoon they become impassable. In other parts of India, the crops perish for want of water. Often the water supply of an entire village consists of a well or a tank maintained in unsatisfactory hygienic conditions. When an epidemic breaks out, no one is free from it; the individual medical practitioner does not find it profitable to set up in a remote village. Without adequate curative and preventive facilities, the epidemics take a heavy toll of the village population.

In most villages, the progress of the local school is conditioned by the rural economy. It is true to say that in most cases the education of a farmer's son depends on the hazards of agricultural enterprise. In a lean year, when the crops have failed, the farmer may not be able to afford his son's schooling, or he may need an extra hand in the field. Wherever poverty exists, apathy is inevitably associated with it. To bring home to the villagers the

need for change is the essential basis of reform. The Community Projects Programme thus accords considerable importance to schemes which seek to promote literacy and public hygiene.

Even in the matter of cultivation, there is considerable scope for assistance to the farmer. He is still partial to traditional methods of cultivation and his wooden plough does not penetrate deep enough into the soil. He is not very particular about the quality of the seeds he sows or their suitability to the soil. If science has been harnessed in the laboratory for the benefit of agriculture, its results do not as yet exist for him. He loves his cattle, but they constitute a drain on his meagre resources. Since they are invariably ill fed, he has to have more of them to do his work in the fields, thus establishing a vicious circle. Also in the matter of irrigation, he has to leave things to chance. He has not the means to deepen the well in the village or to sink a new one. It is true that the Five Year Plan accords priority to schemes which envisage the construction of a number of irrigation and power projects. But they will take time to fructify and in the meantime the production of food must go on. Moreover, the farmer does not make full use of green manure; the composting of manure, even if it is known in the villages, is not widely practised. He also needs advice on the use of artificial fertilizers especially adapted to the soil in his village.

The Community Projects Programme now inaugurated in 55 areas includes two types of projects. The projects of the composite type will relate to the development of medium and small-scale industries, town-planning, etc., in addition to rural development. The salient features of the project of the basic type are : irrigation, the application of fertilizers, agricultural extension, measures to promote public health and education.

It is proposed to provide each village in the project area with the following: (1) two surface or tube-wells or tanks for drinking water; (2) adequate drainage facilities; (3) agricultural extension service. Five villages

in the project area will be served by one extension worker; (4) veterinary services. A veterinary hospital will be located at the headquarters of the project area and the constituent villages will be served by a mobile unit; (5) sanitary services. Each block centre will have the services of a sanitary inspector; (6) arrangements to irrigate at least half the cultivated area through canals, tube-wells, surface wells, tanks and by lifting waters from rivers, lakes, etc.; (7) pasture, housing sites and forests for fuel; (8) roads. Main roads connecting the villages with the projects headquarters will be constructed and maintained at Government expense, while the feeder roads will be built by the voluntary labour of the village population; (9) primary education for all children of school-going age as well as a centre for adult education; (10) a recreation centre; and (11) fisheries wherever the necessary facilities exist.

It is also proposed to so order the occupational distribution of labour force in the village as to ensure the most profitable division of labour as well as maximum employment. An average village consisting of a hundred families of five members each will be employed as follows :

*Percentage of total
labour force*

Agriculture	50
Agricultural labour, tractor and pump drivers, etc.	10
Cottage industries and other crafts ..	12
Small-scale industries	10
Retail trade	3.5
School teachers	3
Transport	2
Health services	2
Other occupations	7.5
 Total ..	<hr/> 100

THE MANDI

Ultimately, it is proposed to link up 15 to 25 villages

in each project area with a common market place called the *mandi*. Each *mandi* shall have: (i) a middle or secondary school; (ii) a small dispensary with a lady health visitor, midwives and a sanitary inspector; (iii) a sub-head-quarters for the agricultural extension service; (iv) a post and telegraph office; (v) a transport service station; (vi) marketing and shopping centres; (vii) an arts, crafts and cottage industry centre; (viii) a warehouse for agricultural produce; (ix) a community recreation centre; (x) a model farm, a horticultural garden, a seed multiplication centre and a breeding centre for birds and animals; and (xi) an open air veterinary dispensary. The proposal for the *mandi* has had to be postponed owing to the lack of adequate resources. It is, however, hoped that, as the productivity of the project area increases, it may be possible to bring the *mandi* into existence through voluntary co-operative enterprise.

THE DEVELOPMENT BLOCK

Four to five *mandi* units will constitute a Development Block whose headquarters could be located at a rural-cum-urban township with an approximate population of 5,000 people. The Development Block, which will roughly correspond to a *thana* or sub-*tehsil*, will have: (i) water-works; (ii) electric supply; (iii) a high school; (iv) an agricultural school; (v) a mobile primary health unit with 15 beds; (vi) a nursery; and (vii) a veterinary hospital. For the present, however, the headquarters will have the same equipment as proposed for the *mandi*.

PROJECT AREA

Three Development Blocks consisting of approximately 300 villages will make up a project area with a population of ten to twenty thousand. The project headquarters shall have the following special features: (i) a teachers' training college; (ii) a technical training centre; (iii) arbitration and law courts; (iv) a tractor service and supply station; (v) a transport workshop; (vi) an engineering workshop;

(vii) a secondary hospital; (viii) a training centre for village level workers; and (ix) a dairy, a poultry and an agricultural experiment station with facilities for soil research.

COST OF PROJECTS

The cost of a project of the basic type has been estimated at Rs. 6.5 million and of the composite type at Rs. 11.1 million. In all, the 55 projects are expected to cost the Government Rs. 383.8 million during the course of three years of which approximately Rs. 40 million will be contributed by the U.S. Government under the Technical Co-operation Agreement. The dollars obtained under the Agreement will be spent mostly on equipment and supplies for the projects. About 55 per cent of the funds supplied to the State Governments for the execution of the projects will be treated as loans. As the money is repaid, they will be used to start the programme in other parts of the country.

ORGANIZATION

The ability of the project workers and executives to infuse the villagers with enthusiasm and persuade them to contribute a major share of the labour involved will be the measure of the success of the programme.

The overall responsibility for the administration of the projects and the training of personnel has been vested in a Central Committee, consisting of the members of the Planning Commission. The execution of the projects will be the responsibility of the State Development Committees presided over by their respective Chief Ministers. Each State will have a Development Commissioner and at the centre there will be a chief executive officer called the Administrator. The District Development Officer will be responsible for the execution of the projects in the various districts. There will also be a District Development Committee presided over by the Collector. While the Project Executive Officer will formulate the programme in

the project area, the most important link in the chain is, however, the village level worker on whom rests the responsibility to ensure the villagers' participation in the projects.

TRAINING OF PROJECT WORKERS

To man the 55 community projects, more than 6,500 trained workers will be required. Five training centres were initially set up for this purpose by the Government of India with financial assistance from the Ford Foundation of America. Another 25 training centres are being planned and they will train 1,800 workers every six months. Besides this, the services of the u.s. Technical Co-operation Administration will be readily available to the Community Projects Administration.

CHAPTER X

AGRICULTURE

ALTHOUGH India is being steadily industrialized, agriculture is still the mainstay of nearly two-thirds of her population and the primary source of her national wealth.

Out of a total area of 811 million acres, some 424 million acres are cultivable. Of the arable area, 63 per cent is crop-yielding, 14 per cent fallow and 23 per cent waste land. India's irrigated area of 49 million acres is the largest in the world. On an average, the unit of cultivation is less than five acres.

FOOD CROPS

Food crops occupy more than four-fifths of the cultivated land. Both in respect of area and production, rice is the most important among the cereals. Between 1948-52, the area under rice fluctuated between 72 and 76 million acres, and its production between 20.27 million and 23.17 million tons. In eastern and southern India it is the staple article of diet. India, however, does not grow sufficient rice to go round.

Next in order of importance is wheat, which is a staple food in most parts of northern India. The annual production during 1948-51 was 6.1 million tons, while in 1950-51 the production reached 6.6 million tons. Millets are grown in most of the States. Its principal varieties are *bajra* and *jowar* and together, they accounted for a total production of 7.68 million tons in 1951-52. India grows 1.99

million tons of maize, 2.1 million tons of barley and 1.81 million tons of small millets. Pulses grown throughout the country amount to about 7.56 million tons annually.

CASH CROPS

During 1951-52, 4.73 million acres were devoted to the cultivation of sugar-cane, the largest area under that crop anywhere in the world. In 1951-52, the production of sugar amounted to about 5.9 million tons in terms of raw sugar (*gur*). The production of crystal sugar was about 1.47 million tons in 1951-52.

Commercial crops cover about a fifth of the area under cultivation, and form the bulk of the country's exports. India is an important producer of oil-seeds and vegetable oils. Groundnut is grown in about 40 per cent of the total area under oil-seeds and accounts for about 60 per cent of their total production. Next in importance are rape and mustard and sesamum. In 1951-52, three million tons of groundnut, 900,000 tons of rape and mustard and 441,000 tons of sesamum were produced.

More than 50 per cent of the tea grown in the world comes from India. Of about 600 million lb. of tea produced annually, more than a quarter is consumed internally and the rest exported. Tea thus brings in about Rs. 800 to 900 million foreign exchange every year.

Among the other cash crops grown in India are tobacco, cotton and jute. India is the third largest grower of tobacco. Partition seriously affected her supplies of cotton and jute, but since then concerted efforts have been made to increase their production¹. In 1950-51, production of cotton and jute amounted to 2.93 million bales and 3.3 million bales respectively. In 1951-52, the production of jute increased to 4.67 million bales. Cotton, jute, pepper and tobacco added nearly Rs. 3,000 million to the country's income from foreign trade in 1950-51.

¹ See Ch. 11.

Since 1930, the production of food in India has not kept pace with the growth of population. The separation of Burma from the Indian sub-continent in 1935 deprived India of her largest rice-producing area. Some other areas with surplus food were lost to India as a result of partition, and India's deficit thus increased considerably. To make good this shortage, India has had to import food-grains.

FIVE YEAR PLAN

In 1947, a five year plan was adopted to increase the output of food crops. The main features of the plan were the intensive cultivation of existing land and reclamation of new land for cultivation. Early in 1949, a self-sufficiency campaign was started with a view to producing an additional 4.8 million tons of food-grains by the end of 1951-52.

The intensive cultivation schemes were of two kinds. Under the permanent schemes, wells, tanks and small dams were constructed in areas where the supply of water was precarious. The recurring schemes sought to increase the yield per acre by using improved varieties of seeds, manure and fertilizers. Village refuse was composted, and scientific methods of protecting plants against pests and diseases were placed at the disposal of cultivators. In the earlier stages of the self-sufficiency campaign, the Government concentrated on the recurring schemes, but later the emphasis was gradually shifted to the permanent ones. Small holdings were more intensively cultivated under the supervision of the State Governments. The Central Government maintained a close liaison with the States and helped them with money and material. The latter were given grants and loans for green manuring, composting, seed multiplication and land improvement.

RECLAMATION

To bring fresh land under the plough the Government set up a Central Tractor Organization in 1947. It has carried out some of the largest land reclamation operations

in Asia. Thousands of acres of land in Madhya Pradesh, Uttar Pradesh and Madhya Bharat, infested with a pernicious weed known as *kans*, were cleared and made ready for cultivation. During the three years ending 1949-50, the Central Tractor Organization reclaimed 183,374 acres of land in various States thereby increasing the total production by 61,000 tons. In 1949, a loan of \$ 10 million was obtained from the International Bank for the purchase of 375 heavy tractors. Between January and June 1951, it further reclaimed 281,962 acres of *kans* land. During 1952, the organization hopes to reclaim 280,000 acres of *kans* land, 19,000 acres of grass land and 16,000 acres of jungle land.

The drive for self-sufficiency yielded 2.71 million tons of additional food-grains during the three years ending 1950-51. Between April 1949 - June 1951, 186,000 wells were sunk or repaired, 8,000 tanks were constructed or repaired, 30,000 minor irrigation works completed and 40,000 water-lifting appliances installed.

In the meanwhile it became increasingly difficult to secure supplies of jute and cotton from Pakistan and it was felt that India's export industries should not be dependent on precarious sources of supply. Also, the domestic demand for sugar could not be met by internal production. Accordingly, the self-sufficiency programme was converted in 1951 into an integrated production programme to achieve relative adequacy in the supplies of cotton, jute and sugar. Besides the objective of self-sufficiency, the scheme has other features: The subsidy given to the cultivators was linked up with procurement; financial assistance was given to the farmer on the condition that he surrendered sixty per cent of the increased output to the State. The administrative machinery was toned up to ensure closer supervision on the execution of the plan. To enthuse the farmers in the new schemes, crop competitions were organized and prizes awarded to competitors who obtained the best yields.

The integrated production programme was later in-

corporated into the Five Year Plan.² The Plan has laid down detailed targets for agricultural production: 7.2 million tons of additional food, 2.1 million bales of jute, 1.2 million bales of cotton, 375,000 tons of oil-seeds and 690,000 tons sugar (*gur*). When the various multi-purposes projects are completed, 16.4 million acres of irrigated land will be added to India's existing 49 million acres.³

TEN YEAR PLAN

The ten-year programme of land transformation, which was recently drawn up, represents an advance on the integrated crop production plan. It envisages the most rational and balanced utilization of land over a period of ten years with a view to securing the maximum development of land, water and livestock resources. The programme envisages the: (1) mobilization of available funds and technical facilities in 48 million acres of land with an assured water supply; (2) reclamation of 10 million acres of waste and fallow lands; (3) organization of a land army supported by an extension service in at least 100,000 villages; (4) production of 60,000 stud bulls a year and eradication of rinderpest in the country; and (5) planting of 30 million trees for the protection and development of forests.

The Grow More Food policy has now been reviewed, and efforts are being concentrated in selected areas having an assured supply of water and the soil suitable for intensive development. The schemes for the distribution of improved seeds, manures and fertilizers are now normally sanctioned only for these areas. In regard to minor irrigation works also preference is given to land capable of giving quick returns.

IMPORTS

Among the other causes, natural calamities have

² See Ch. 8.

³ See Ch. 19.

impeded India's self-sufficiency programme most. Owing to the failure of the monsoon in Madras, floods in U.P. and Bihar and a severe earthquake in Assam, the production of food-grains in 1950-51 was 4.3 million tons less than in 1949-50. As the various schemes for developing agriculture and protecting it from the vagaries of nature will take time to materialize, the country has been importing food-grains to make good the shortage.

Imports of food-grains during 1951 amounted to 4.72 million tons. This quantity included about one million tons of wheat and 50,000 tons of milo under a special agreement with the U.S.A., about 24,000 tons of wheat and wheat flour from Australia under the Colombo Plan and about 1.5 million tons of wheat under the International Wheat Agreement. Three barter agreements were concluded during 1951, two with China and one with the U.S.S.R. A long-term agreement was also concluded with Burma by which India was assured a supply of 240,000 tons of rice in 1951 and 350,000 tons of rice each year between 1952-55.

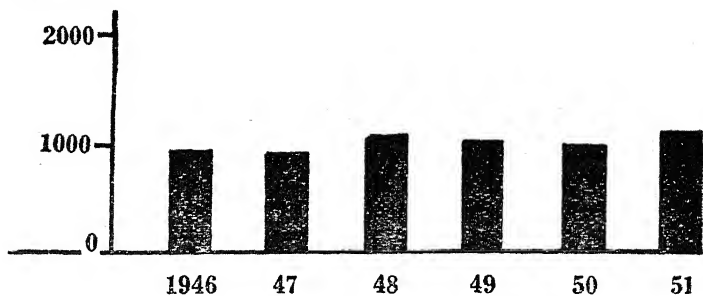
RESEARCH

Research and extension activities are being carried out by the Indian Council of Agricultural Research, the Central Research Institute and the Central Commodities Committees. The Council co-ordinates agricultural research, suggests suitable methods of work, provides financial assistance to the farmer for approved schemes, etc. The Council was reorganized last year to deal more effectively with its responsibilities. The Council of Agricultural Education has also been set up for the reorientation of agricultural education.

The Central Research Institutes are engaged on a variety of research projects, both fundamental and applied. They conduct extensive inquiries to improve the fertility of the soil, the quality of grass and grasslands. They have evolved certain varieties of crops which are capable of

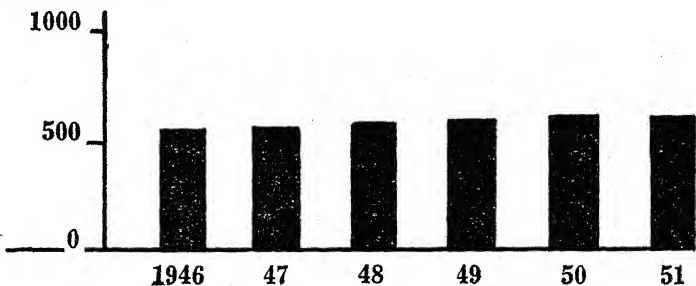
Thousands
of Tons

SUGAR



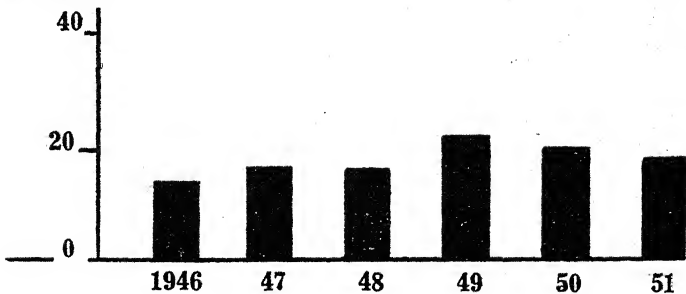
TEA

Millions of lb.



COFFEE

Thousands
of Tons



resisting drought, disease, insects and pests; they are adaptable to all types of Indian soil. The Indian Agricultural Research Institute has done good work on basic problems of all-India importance. The Central Rice Research Institute conducts field trials and laboratory investigations on the botany, agronomy, mycology, entomology and chemistry of rice. A large collection of genetic stocks of rice are maintained by the Institute; their characteristic properties are studied and improved varieties multiplied. The Central Potato Research Institute also breeds new varieties, both for the hills and the plains, capable of giving high yields. The Central Vegetable Breeding Station is engaged on evolving seeds of European vegetables to suit Indian conditions. The Indian Central Cotton Committee undertakes specific investigations on crop improvement, plant physiology, cotton technology, statistical research, etc. The Indian Oil-seeds Committee, the Central Sugar-cane Committee, the Indian Central Tobacco Committee, the Central Coconut Committee and the Indian Central Arecanut Committee conduct research in their respective spheres.

FORESTS

Covering nearly a ninth of the country's area, forests are an important source of wealth. They provide employment for nearly a million people. Teak, sal, *deodar*, *chir* and *sheesham* and many varieties of useful timber come from the forests. Besides providing timber, fuel, and fodder, forests yield medicinal herbs and raw materials for the manufacture of paper, matches, rubber, resin and turpentine.

The Forest Research Institute at Dehra Dun carries out research on a variety of subjects. The pathology of fungi, the identification of commercial timbers are among the more important subjects of study. They also undertake work on pencils, bamboo boards, the use of particular varieties of wood in the manufacture of paper, etc. The Institute provides training for forest officers and rangers.

The Indian Lac Cess Committee organizes fundamental and applied research on lac products.

CATTLE

Cattle are an essential factor in India's agricultural economy. India has 150 million cattle which constitute a fourth of the world's cattle population. The annual production of milk is 17.7 million tons and the per capita consumption of milk and milk products has been estimated at 5.45 oz. a day.

The Indian Veterinary Research Institute at Izatnagar has six main research divisions and four auxiliary sections. In addition to research, the Institute undertakes the manufacture of biological products and trains students.

The Indian Dairy Research Institute at Bangalore, trains students for the Indian Diploma in Dairying, develops pedigree herds of *Red Sindi*, *Gir* and *Tharpakar* cows and conducts research on problems relating to the dairy industry. A beginning has been made with the Key Farm Scheme which seeks to establish intensive cattle improvement areas.

FISHERIES

India's annual production of fish is 522,000 tons, 71 per cent of which come from the sea. There are 187 curing yards in the country. The per capita consumption of fish is about 3.4 lb. a year.

With an extensive coast line and numerous rivers, lakes and tanks, India has potentially rich sources of fish which are being gradually developed and exploited.

Research on fisheries is carried out at the Central Inland Fisheries Research Station at Barrackpore, the Central Marine Fisheries Research Station at Mandapam and the Deep-sea Fishing Station at Bombay.

EXTENSION DEPARTMENT
LIBRARY
Allalabad Agricultural Institute



CHAPTER XI

INDUSTRY

INDIAN silk, cotton textiles, paper and metal work, famous throughout the world, were the handiwork of highly skilled individual craftsmen. For a long time, certain cotton fabrics of Indian origin were denied entry into the British market by law, and even at home their manufacture was discouraged. Following the industrial revolution in Europe in the eighteenth century, the products of British factories threw Indian artisans out of employment and India progressively became an agricultural outpost of the industrial economy of Great Britain.

The introduction of railways in 1853 was motivated mostly by commercial and strategic considerations. The railways and roads were so built as to facilitate the transport of raw materials from the interior to the ports and to ensure the efficient distribution of imported manufactures. The changes that followed the advent of organized transport in the country were naturally more pronounced in the sphere of commerce than in industry. The great centres of Indian craftsmanship suffered considerable depopulation, and in their place rose new cities which became important for their distributive trade in cotton textiles and other imported articles. Besides destroying the occupational equilibrium of the Indian economy, the influx of manufactured imports increased the pressure of population on the land. In the early decades of the nineteenth century, India produced cotton fabrics esteemed all over the world and by

all standards, the costs of production in the country were remarkably low. Indeed, as late as 1813, she had an export surplus in her foreign trade. But in 1853, cotton goods valued at £5.2 million constituted 65 per cent of her imports from Great Britain.

During 1850-55, a few cotton and jute mills and coal-mines were started with Indian capital. In three decades, these industries made phenomenal progress. By 1878, 18 jute mills had been set up and 8,000 miles of railway laid; the annual production of coal then amounted to over one million tons. Between 1879-1914, the number of cotton mills had increased from 58 to 264, and jute mills to 64. In 1914, about 15.7 million tons of coal were produced.

The sellers' market created by the war of 1914 gave a fillip to the growth of industries in this country. As imports from Europe fell off, indigenous industries found a ready market at home. In particular, the iron and steel, leather, and jute industries availed themselves of the temporary protection afforded by the war. Moreover, the concept of imperial economic policy was itself being modified in the light of changing conditions. For strategic and commercial reasons, it was found expedient to encourage certain indigenous industries, and even to protect them against foreign competition. The ruling interests, however, continued to be well served, and a policy of imperial preference ensured the easy access of British manufactures to the Indian market. Among the other factors responsible for this change in State policy towards Indian industries, national sentiment was probably the most important. The Swadeshi Movement, begun in 1905, had by now gained considerable momentum. But all these factors still did not make for the organized industrial development of the country. At best, imperial preference accorded to India the status of a privileged seller of raw materials and semi-manufactures in the British market and thus sought to perpetuate the agrarian character of the Indian economy. Also, the enormous profits in the jute and cotton industries were disbursed mostly in the form of dividends; the profits of enterprise

were thus not ploughed back into industry. Moreover, with the cessation of hostilities, infant industries had to face keen competition from well-established foreign manufactures.

A few industries were granted protection, and they made commendable headway in spite of the depression of the inter-war years. During 1929-33, the value of the country's exports fell by over 60 per cent, while imports were only halved. At a time, when the other countries of the world were immobilizing their gold reserves by every means, India exported vast quantities of gold on account of home charges and debt services; these payments amounted to £241 million during 1931-37.

WORLD WAR II

Again World War II brought home the need for local sources of supply with which to feed the sinews of war. Many of the factories of Europe had been destroyed, while those of Japan and the U.S.A. were engaged in war effort. Also, enemy action seriously threatened the vital lines of communication. India thus emerged as the chief supplier of manufactured goods to the Middle and the Far East. The steel industry made rapid strides and fully justified the protection it had received earlier. Thanks to the exigencies of war, a beginning was made in engineering industries, particularly in machine tools and small armaments. The textile, paper and leather industries which depended on imported raw materials were, however, seriously handicapped by the almost total cessation of imports of chemicals like caustic soda, sodium carbonate, etc. The war thus fully revealed the basic imbalance in the country's industrial structure. Owing to the halting industrial policy of the Government, however, the opportunities which followed in the wake of the war were not fully exploited.

At the end of hostilities in 1945, the nation's industrial activity looked promising. The paid-up capital of joint-stock companies had risen from Rs. 2,904 million in 1939-

40 to Rs. 4,242 million in 1945-46. India's output of steel and cotton textiles were able to cope with three-fourths of the internal demand for these goods. She was, moreover, self-sufficient in sugar, cement and soap. In jute manufactures, she enjoyed the benefits of a virtual world monopoly. India thus came to be ranked among the leading industrial nations of the world.

The post-war years proved to be a critical period for Indian industry, as indeed for industries all over the world. The bulk of the country's industrial equipment, heavily overworked in the service of war, had become obsolete and needed replacements and repairs. In fear of an anticipated depression, the capital market remained slack. Production fell and output in most industries continued to be far below capacity.

The general decline in production brought about a disparity between supply and demand, particularly in the essential goods industries. Raw materials were in short supply and costs of production rose steeply. The rise in personal incomes was thus more than offset by the increased cost of living. An inflationary situation had set in with all the attendant hardships of labour unrest and middle class impoverishment.

POST-FREEDOM PHASE

It is at this juncture that India became a free country, but the partition of the Indian sub-continent threw certain industries out of gear. The jute mills in and around Calcutta on the one hand, and the jute growing areas in East Pakistan on the other, found themselves separated by the new international frontier. Similarly, the textile mills of Bombay and Ahmedabad became dependent on Pakistan for about a million bales of raw cotton.

Prompt remedial measures became necessary. In December 1947, the Government convened a tripartite conference on industrial development to which representatives of labour and capital were invited. The affairs of Indian industries were reviewed and the objectives of Government

planning defined. The Government declared that its immediate aim was to increase production through more intensive exploitation of existing resources and thus bring down prices. In the long run, it was hoped that production would consequently rise to the full extent of existing capacity. The short-term measures envisaged by the authorities were : (1) controlled distribution of raw materials in short supply; (2) the provision of essential capital equipment and additional transport facilities; and (3) the negotiated settlement of disputes between capital and labour. The representatives of workers and employers agreed to observe a three-year truce in the national interest.

Accordingly, the Government of India drew up plans to cover 32 industries whose difficulties, it was felt, could be tidied over in a period of eighteen months. A number of committees were set up to draw up plans for the allocation of materials in short supply.

INDUSTRIAL POLICY

The Government's industrial policy which was announced in 1948 sought to step up production and demarcate the spheres of operation for State and private enterprise. This policy was characterized by the following three main objectives : (a) industrial planning; (b) the regulation of industries; and (c) their development and protection.

Indian industries were classified under three broad heads:

(1) arms and ammunition industries, atomic energy, river valley projects and railways were declared to be State monopoly.

(2) coal, iron and steel, aircraft, telephones, telegraph, wireless, ship-building and mineral oils were declared to be the responsibility of the State. It was to ensure the regulation and planned development of these industries. The existing private undertakings were to continue in the hands of their owners for at least ten years. The State

reserved to itself the initiative for their future development and the establishment of new undertakings.

(3) The textile, jute, woollen, leather, cement, sugar and tea industries were to be operated by private enterprise.

The management of State enterprises was to be vested in public corporations under the statutory control of the Central Government. Industry was assured that the tariff policy of the Government would be so designed as to ensure freedom against unfair foreign competition, and to utilize the country's resources without imposing unjustifiable burdens on the consumer. The structure of taxation was to be constantly reviewed with a view to encouraging savings and promoting investment.

The Government's industrial policy of 1948 sought to improve productivity, efficiency and the standards of management in industries. It later transpired that the Government was not adequately empowered to discharge these functions. The Government of India (Amendment) Act, passed in 1949, resulted in the transfer of certain powers for the regulation and development of certain major industries, normally vested in the States, to the Central Government. On October 12, 1951, Parliament enacted the Industries (Development and Regulation) Act of 1951 to ensure that their expansion conformed to the overall plan of the country's economic development.

This Act provides for the licensing of new industrial undertakings and a substantial expansion of the existing ones. It further authorizes the Central Government to frame rules to govern the: (a) registration of existing undertakings; (b) regulation of production and development of these industries; and (c) the consultation of the State Governments in these matters.

The Act also envisages the constitution of a Central Advisory Council and Development Councils for any selected industry or group of industries. The Central Advisory Council, composed of representatives of industry, labour, consumers and primary producers, has already been

formed. The Council will advise the Government on all matters concerning the development and regulation of various industries. Development Councils, comprising representatives of labour, technicians and consumers, will draw up plans of development, determine targets of production, evolve standards of efficiency and devise measures which will lead to the full utilization of existing capacity.

The Act authorizes the Government to resort to direct control in an emergency. If an industry continues to fare badly over a period of time, the Government may conduct an enquiry into its affairs and suggest remedies. If the management fails to implement them, the Government may assume charge of the management for a period of five years in consultation with the Central Advisory Council. This Act, which covers 37 industries, including iron and steel, coal, cement, textiles, sugar, will apply to all establishments which employ 50 workers and more and use electricity.

STATE ENTERPRISE

The Central Government has itself undertaken several industrial ventures. The gross book value of the fixed assets owned by the Central and State Governments together with the working capital of these enterprises amounted approximately to Rs. 12,360 million at the end of the financial year, 1950-51. They were roughly distributed as follows.

INVESTMENT BY CENTRAL AND STATE GOVERNMENTS¹

	<i>(in millions of rupees)</i>		
Railways	8,370
River valley and irrigation projects	2,300
Communications and Broadcasting	530
Electricity undertakings	490
Industries	440
Civil aviation	100

¹ Excluding investment on roads.

Ports	..	..	80
Central Tractor Organization	..	..	50
			<hr/>
Total	..		12,360
			<hr/>

Investments by the State in industrial enterprises amount to about Rs. 440 million. It has controlling interests in every one of these firms and in most cases its affairs are managed by an autonomous board of directors. Very often, the Government of the State, in which the concern is located, has also a share in the enterprise.

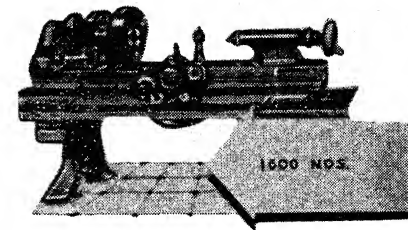
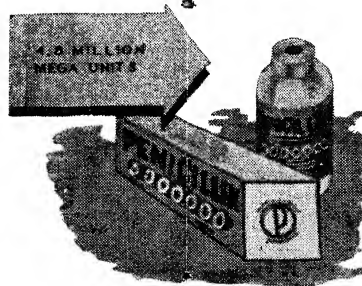
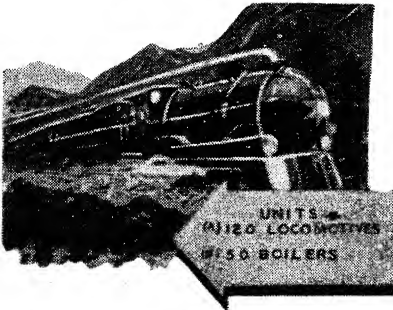
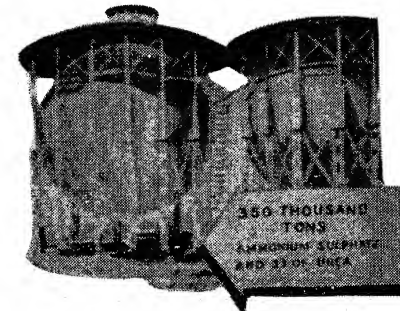
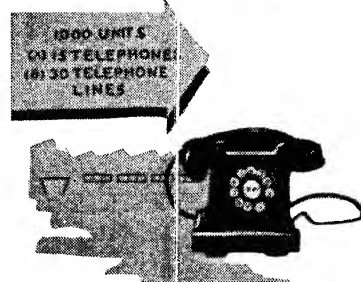
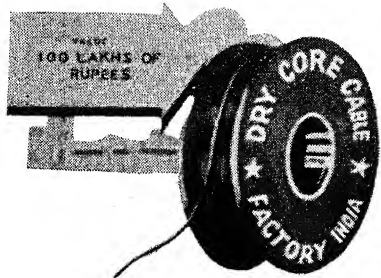
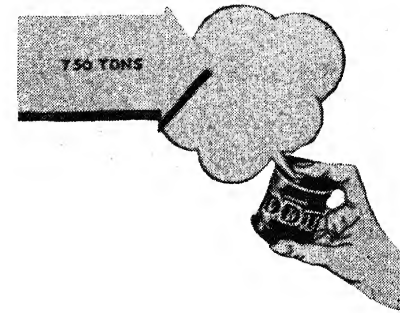
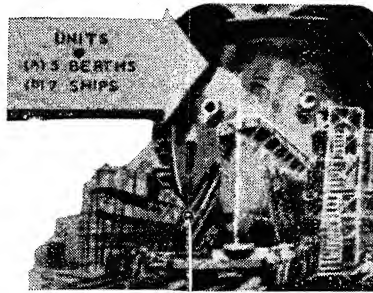
The Sindri fertilizer factory, the largest of its kind in Asia, is managed by a board of directors with an official of the Government of India as its chairman. The factory is equipped to produce a thousand tons of ammonium sulphate a day by the gypsum process. It will meet the bulk of internal demand which has been estimated at 40,000 tons a year. With the help of artificial fertilizers, Indian farmers will be able to raise better crops and achieve higher yields. Besides, the country will save Rs. 100 million in foreign exchange.

It is hoped that Sindri would become the nucleus of a vast chemical industry which the country badly needs at present. Plans to equip the factory to produce urea and ammonium nitrate prills are also being considered. To enable the factory to function speedily and efficiently, it has been converted into the Sindri Fertilizers and Chemicals Ltd., a private limited company with an authorized capital of Rs. 300 million.

LOCOMOTIVES

The Government has set up a workshop at Chittaranjan in West Bengal to manufacture steam locomotives. Its construction was started in 1948. The factory, designed to produce 120 locomotives and 50 spare boilers annually, is estimated to cost Rs. 149.1 million when completed. The factory hopes to meet the bulk of its demand for steel from indigenous sources. When the factory is

STATE ENTERPRISES



fully organized, it will be the largest of its kind in Asia. The country's capacity to produce rolling stock is already equal to its annual replacements, and by 1955 India will become self-sufficient in locomotives and rolling stock.

AIRCRAFT

In 1942, the Government of India purchased the Hindustan Aircraft Factory Ltd. at Bangalore from its managing agents and in 1943, it was converted into a limited liability company with the Governments of India and Mysore as its shareholders; it is now administered by the Central Ministry of Defence. The HAL, as it is popularly known, has done commendable work in the production of trainer aircraft. The HT-2, an elementary trainer type used by the I.A.F. and the aviation companies, is designed and produced by the HAL. It manufactures vampire jet fighters, one of which took part in the air display held at Delhi. Besides doing overhaul and repair work for air transport companies, the HAL also manufactures Class III passenger coaches for the Ministry of Railways.

TELEPHONES

The import of telephones into India has now been discontinued altogether. The country's demand is being met by the telephones assembled at the Indian Telephone Industries at Bangalore. The factory manufactures all the telephone parts with the exception of dials and condensers which continue to be imported. The factory assembles 25,000 telephones every year, but when it reaches the final stage of its development its output will increase to 50,000 instruments a year. The major share of the capital of the Company amounting to Rs. 25 million is jointly held by the Governments of India and Mysore, and only five per cent owned by the Automatic Telephones and Electric Company of England.

CABLES

A factory is being set up at Rupnarainpur in West

Bengal to manufacture telephone cables. It is estimated that the Posts and Telegraphs Department alone will be able to consume Rs. 8 million worth of cables annually. The factory is expected to manufacture cables of the value of Rs. 87 million at a cost of Rs. 65 million.

PENICILLIN

It is proposed to set up a factory to manufacture penicillin. UNICEF will supply all the imported equipment costing \$ 850,000 and WHO will provide technical assistance worth \$ 350,000. Also, a D.D.T. factory is to be established at Delhi with the assistance of these international bodies.

MACHINE TOOLS

The output of the Indian machine tools industry immediately after partition could hardly meet three per cent of the domestic demand. In collaboration with a Swiss Company, the Government of India therefore decided to set up a machine tools factory. Under an agreement concluded between the two parties, India will receive equipment and technical guidance from the Swiss Company. The factory, which is being constructed at Jalahali at a cost of Rs. 80 million, is designed to produce 900 high speed lathes, 460 milling machines and 240 heavy-duty drilling machines every year. By 1955-56, the value of its annual output is expected to be of the order of Rs. 40 million.

MATHEMATICAL INSTRUMENTS

A sum of Rs. 8 million has been set apart to develop the National Instruments Factory at Calcutta into a full-fledged one. It will produce scientific instruments, such as telescopes, compasses, thermometers and microscopes. Established in 1830 for the maintenance and repair of precision instruments, during the war, it became a complete instrument factory for the manufacture of survey, drawing, mathematical and optical instruments.

SHIPYARD

The Vishakapatnam ship-building yard was until recently owned by the Scindia Navigation Company. Ships built at this yard during the last three years cost Rs. 6.4 million each. During the same period, the cost of building a ship of equivalent value in the U.K. ranged from Rs. 4.4 million to Rs. 5.6 million. The Scindias were therefore given a subsidy to cover the difference and during the last three years the firm received a subsidy of Rs. 1.5 million for every ship built by them.

With a view to putting the industry on secure foundations, the Government set up The Hindustan Shipyard as a joint stock company, two-thirds of the capital being contributed by the Government and the remainder by the Scindias. On March 1, 1952, the shipyard was taken over by the new company; it has contracted an agreement with a French firm for technical assistance and advice.

PRIVATE SECTOR

The investments of the State in the public sector compare favourably with those of private enterprise in the private sector, thus indicating an active role in the future for the State in industrial activity. The value of the total productive capital² in the private sector has been estimated as follows:

(In millions of rupees)

Factory establishments ² ..	..	11,100
Plantations ..	..	1,000
Electrical undertakings ..	..	700
Mines ..	..	300
Shipping and aviation ..	..	320
Motor transport ..	..	1,300
Total ..		<u>14,720</u>

² These estimates are based on historical and not replaced value.

³ A provision of about Rs. 6,000 million has been made for depreciation and to include the capital of factory establishments not covered by the Industrial Census of 1949.

In the private industrial sector, the Government's policy has been one of active encouragement. The help rendered by the Government to the various industries has been mostly in the provision of (a) finance for working capital and (b) essential raw materials in short supply.

In addition to the Industrial Finance Corporation of India set up by the Centre, individual States have also formed corporations to finance new ventures. During 1951, 14 applicants were granted loans aggregating Rs. 19.3 million. To promote individual development a number of National Laboratories have been established at a cost of Rs. 45 million. These institutions undertake research on specific industrial problems and the results of their research are available for commercial exploitation. Further, to enforce minimum and uniform standards, the Indian Standards institution was established in 1947; since its inception, 851 items have been approved by it.

Nearly 40 infant industries are protected from foreign competition by tariffs and import controls. The Government also helps industries to procure raw materials, capital goods and technical personnel from abroad.

COTTON TEXTILES

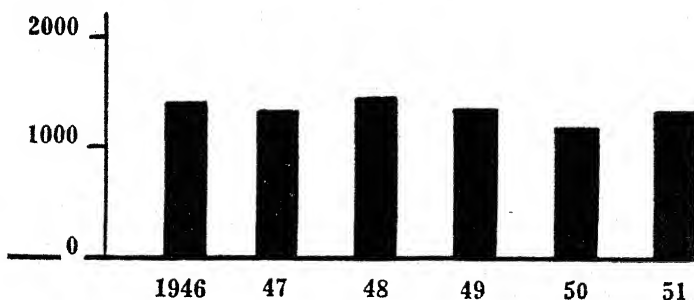
Cotton textiles, India's principal industry, was seriously handicapped by the loss of the cotton-growing areas in Pakistan. The Government made concerted attempts to secure supplies of foreign cotton and to increase internal production. Consequently, the output increased from 1.8 million bales in 1948-49 to 3.4 million bales in 1951-52.

After partition, the production of cloth declined from 4,300 million yards in 1948 to 3,600 million yards in 1950. Thanks to timely assistance by the Government, production has since recovered. In July 1952, over 420 million yards of cloth and 130 million yards of yarn were produced; and this is a record figure.

During 1951, 1,148 million yards of cloth were exported. India now exports more cloth than any other country in the world.

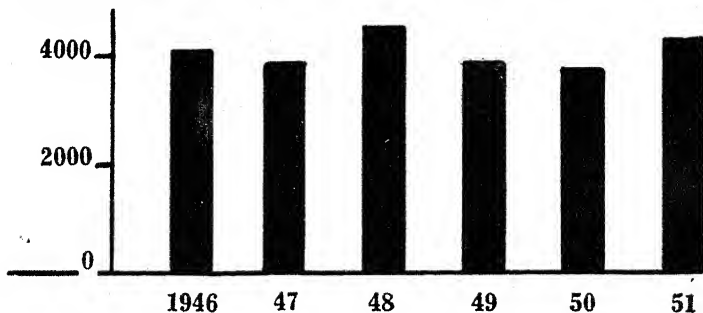
COTTON YARN

Millions of lb.



COTTON PIECE-GOODS

Millions of Yds.



The handloom industry, which produces about 1,000 million yards annually, has been confronted with serious difficulties since August 1947. The shortage of yarn following partition brought about a crisis in the industry. The Government imposed a number of restrictions on the use

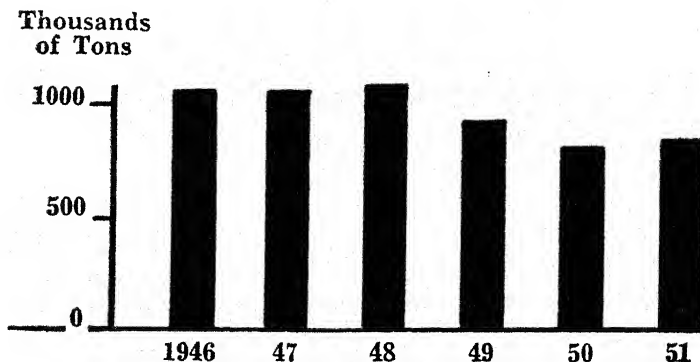
of yarn by mills to ensure its equitable distribution among handloom weavers.

Lately, owing to the relative cheapness of mill-made cloth, the demand for handloom products has declined. The Government of India has, however, set apart certain varieties of cloth which are to be produced exclusively by handlooms. It has also undertaken to meet a third of its own needs of cloth from handloom products. Export duties are not levied on handloom cloth and licenses for export are granted freely.

JUTE

Partition deprived the jute industry of a vital raw material. In 1947-48, India produced only 1.65 million bales of jute as against her normal consumption of 6.5 million bales. A sizable share of India's exports is claimed by the jute industry, which thus makes a very valuable contribution to India's earnings of hard currency. The negotiations held to secure raw jute from Pakistan on reasonable terms proved unavailing. Owing to low stocks, the mills had to seal up some looms and work shorter hours. The Government of India therefore decided to encourage

JUTE



the growth of jute in the country in spite of the encroachment it would make on the land under cereals. In 1951-52, the crop yielded 4.67 million bales of quality jute in addition to certain inferior varieties estimated at 0.7 million bales.

When the raw material became scarce prices of jute goods rose. Consequently, substitutes started making serious inroads on the market for packaging materials. To safeguard the interests of the industry, the Government had to impose price control on raw jute and jute products.

Export duties on jute products were also reduced in order to stimulate exports of jute products. As a result of this measure, hessian bags from India became definitely cheaper than cotton bags in the U.S.A. where Indian jute goods are in fair demand.

The decrease in the export duty has also enabled the Indian jute industry to compete favourably with continental mills which developed rapidly at a time when raw jute was still scarce in India.

IRON AND STEEL

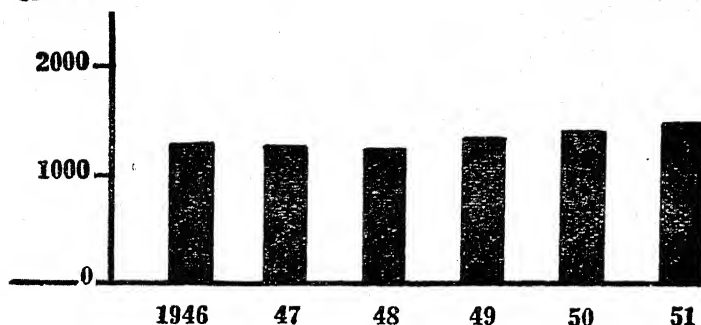
During 1940-44, the annual production of steel exceeded one million tons and in 1943, it reached the record figure of 1.149 million tons. It started declining in 1945 and in 1948, it came down to 854,000 million tons. Owing to the heavy demands made by the war on the industry, the efficiency of the machinery suffered considerably. Labour unrest and transport difficulties aggravated the decline in production. In subsequent years, however, production rose rapidly. From 927,000 tons in 1949, it increased to 976,000 tons in 1950 and to 1.05 million tons in 1951.

The annual demand for steel in the country is estimated at 2.5 million tons while the production at home amounts only to about a million tons. Till 1950, substantial quantities of the metal had to be imported to make good the deficit. Since then, imports have steeply declined thanks to high prices and international restrictions on exports.

The three main producers of steel in the country have undertaken to increase the country's annual production of

STEEL INGOTS

Thousands
of Tons



steel by 1.6 million tons by 1957. The Steel Corporation of Bengal has an expansion scheme to be executed in two stages. In the first phase its annual production of finished steel will increase from 260,000 to 350,000 tons by 1953; for this purpose it has received a loan of Rs. 50 million. The second phase of the scheme will be executed jointly by scob and the Indian Iron and Steel Company, an associate concern.³ By 1956, the combined project will furnish the country with an additional output of 350,000 tons of finished steel and 400,000 tons of foundry pig-iron.

The Tata Iron and Steel Company has also planned to raise their output by 181,000 tons by 1957 at an estimated cost of Rs. 120 million. The Mysore Iron and Steel Mills will produce an additional 60,000 tons by 1957. A loan of Rs. 4 million has already been granted to the firm for this purpose.

To cover a deficit of one million tons of steel, which will persist in spite of these development programmes, the

³ The two companies have now been amalgamated.

Government is contemplating the establishment of its own steel mills.

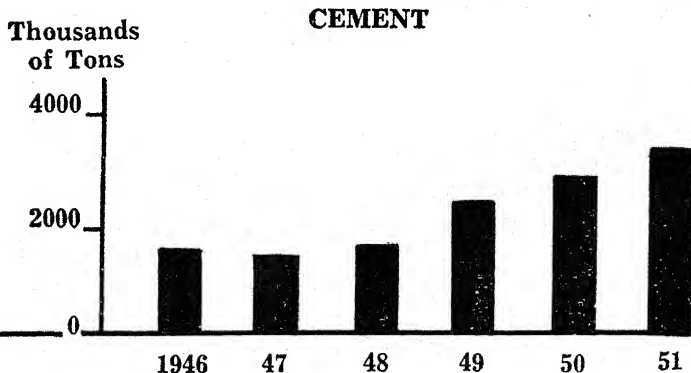
COAL

The production of coal in India has risen steadily from 29.8 million tons in 1948 to 31.4 and 31.9 million tons in 1949 and 1950 respectively. During 1951, the output reached the record figure of 34.3 million tons. India has about 65,000 million tons of coal. Of these, about 5,000 million tons are of good quality.

Coal-mines are largely in the hands of private enterprise; the Government owns only 11 collieries which primarily supply coal to the railways. Meanwhile a scheme for the extraction of synthetic oil from low-grade coal is being examined by the Planning Commission and the Council of Scientific and Industrial Research.

CEMENT

When freedom came, India produced only about 1.56 million tons of cement. By 1949, 21 cement factories had sprung up and between them, they produced about 2.6 million tons of cement during 1950. During 1951, some of



the factories produced to full capacity, and the production of cement consequently rose to 3.19 million tons.

SALT

The salt industry is one of India's ancient industries. The country was self-sufficient in salt until the beginning of the nineteenth century when it became dependent on imports. This dependence was accentuated by the loss of extensive rock salt deposits in the West Punjab and the marine salt works of Sind in the wake of partition in 1947. During 1947 and 1948, imports amounted to about 12 million maunds. The country has since been able to attain self-sufficiency in this vital commodity. In fact, she now has a substantial surplus.

The Mandi rock salt deposits are the only known source of rock salt in India. On the recommendation of an expert committee, a survey was recently undertaken and a scheme has been prepared for the exploitation of these deposits at a cost of Rs. 10 million.

CHEMICALS

In consequence of increased production, the import of certain chemicals has been stopped. These include drugs and patent medicines which are now produced locally. There are many chemicals, such as glycerine, bichromates, magnesium chloride, potassium bromide, etc., which India is now exporting to the U.K., the U.S.A. and other countries. Several other drugs are supplied to the Middle and Far East.

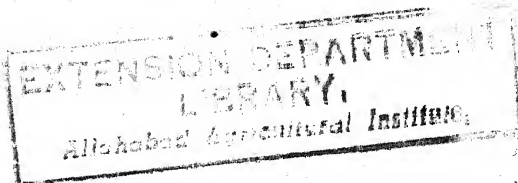
The establishment of a chemical industry in India has so far proved difficult, for the efficient production of chemicals depends on a number of ancillary products. In spite of handicaps, India is now producing bromine, potassium bromide, hydroquinine, anti-tubercular drugs, PAS and thio-semi carbazone, anti-leprosy drugs, novitron, cellophane and tissue paper. Plastic-coated leather cloth, which

is being produced in India, can now meet the requirements of the country's automobile industry.

A striking advance has been made in the production of ebonite rubber components for automobiles. India is now producing good quality Baker's Yeast, and beginnings have been made in the production of glucose.

ENGINEERING INDUSTRIES

By the time the war came to an end, the country had begun to produce bicycles, storage batteries, small electrical motors, lamps, cables, wires, etc. In addition, aluminium, lead, antimony and small tools are now produced in the country. The Government has done its utmost to foster the growth of this industry; as a result, the country is now self-sufficient in a variety of articles like electrical motors, batteries for motor cars, ceiling fans, conduit pipes, metal sheets for utensils, etc. Factories have also come into existence for the manufacture of several other articles.



CHAPTER XII

FINANCE

THE revenues of both the Central and State Governments in India have continued to remain at high levels during the post-war years. The revenue and expenditure of the Central Government for the period 1949-52 are set out in the table below. They are more than four times the pre-war figures for undivided India. For 1951-52, the revenue and expenditure of Part 'A' and 'B' States were estimated at Rs. 4,223 million and Rs. 4,196 million respectively.

BUDGET OF CENTRAL GOVERNMENT

(Revenue Account)

(In millions of rupees)

1949-50	3323.6	3361
1950-51	3872.1	3792.8
1951-52	4976.7	4050.6
1952-53 (estimated)	4049.8	4012.5

The total revenue of the Central and State Governments amounts to Rs. 8,384 million which is a little less than 10 per cent of the estimated national income.

DISTRIBUTION OF POWERS

The Constitution of India has provided for a clear distribution of resources between the Centre and the States. Some measure of flexibility has, however, been secured in this matter by providing for the distribution of the net proceeds

of the income-tax between the Centre and the States and also for grants-in-aid to the States. The Constitution has further authorized Parliament to allocate any of the Central excises between the Centre and the States. An impartial machinery for the allocation of the divisible taxes and the determination of grants to the States has been ensured through the Finance Commission.

FINANCIAL INTEGRATION

Consequent upon the integration of the princely States with the rest of India, their fiscal relations with the Centre had to be regularized. A committee was therefore appointed in 1948 to evolve a scheme of financial integration. The recommendations of the committee were agreed to with modifications. From April 1, 1950, the States and State Unions were placed on a par with Part 'A' States. The Centre took over the Central subjects and services from them along with the related assets and liabilities. In the past they were paying for some of their expenditure on State subjects from revenues which have now been transferred to the Central list; the States are therefore being reimbursed by grants from the Centre. In regard to the divisible sources of revenue, such as the income-tax, etc., they enjoy the same privileges as the other Part 'A' States.

FREEDOM AND AFTER

The morrow of independence found India confronted with a multitude of problems. The war had left behind a legacy of acute shortages and depleted India's economic potential. Deficit financing had been resorted to liberally to feed the sinews of a total war. There was an undue expansion of currency accompanied by a scarcity of goods and services. After the cessation of hostilities, prices spiralled upwards under the pressure of unspent incomes, and an inflationary situation had set in with repercussions on production and income. Between 1939-45, the note issue had increased from Rs. 1,960 million to Rs. 10,950 million and concurrently, the price-index rose from 95.7

in 1938 to 244.4 in 1945. Under the stimulus of an artificial demand, there took place an unco-ordinated expansion of industries without any regard for costs or efficiency. Shortages and high prices led to a dislocation of the internal market. The system of controls had been strained to a breaking point and business integrity declined markedly.

Before the painful after-effects of war had had the time to disappear, the Indian sub-continent was divided to create two sovereign and interdependent economies. Partition thus destroyed the unity of undivided India and threw its stable economic structure out of joint. Millions of refugees migrated across the border and the financial and human problems that then confronted the Government were unprecedented in history. By 1950-51, Rs. 1,080 million had been spent mostly on the construction of houses and townships and grants and loans for displaced persons.¹

POST-FREEDOM PHASE

When freedom came in 1947, it brought wider responsibilities. The Armed Forces had to be equipped to defend the frontiers of India against external aggression. In pursuance of an independent foreign policy, she entered into diplomatic relationships with the important nations of the world.

In a world of scarcities, sellers' markets and trade barriers, it was inevitable that the country's foreign trade should assume a highly complex structure. Further, India's external finances had to be managed and conserved according to a plan. All these meant additional expenditure on administration. Finally, the leaders were committed to raise the standards of life of their people as rapidly as possible. There were thus several competing and urgent demands on the country's limited sources of revenue.

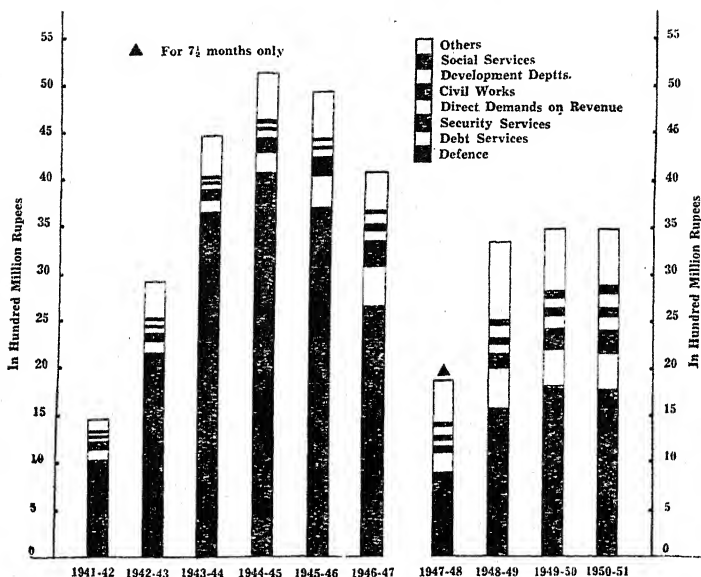
BUDGETARY POLICY

The budgetary policy of the Government during the

¹ See Ch. 21.

EXPENDITURE OF THE CENTRAL GOVERNMENT

(Revenue Account — Under Major Heads)



next four years reflects in some measure the problems of India's economic development. The expenditure on defence and the relief and rehabilitation of refugees were all unavoidable, and food had to be imported in large quantities to meet the deficit in internal production.² No economy of expenditure on development was possible without at the same time retarding the country's economic progress. Capital was scarce, and although the national

² See Ch. 10.

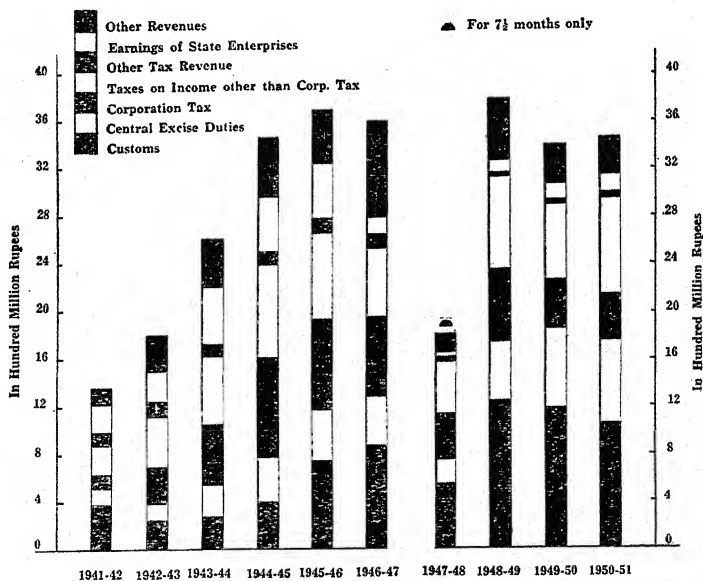
Government had inherited a substantial cash balance, it could draw on it only to a limited extent for fear of aggravating the inflationary situation.

TAX STRUCTURE

The main sources of the Central revenue are customs, excise duties, the corporation tax and the income-tax; together they account for over 90 per cent of India's total revenue. Half the proceeds of the income-tax accrue to the States. Customs levies were the single largest source of revenue before the war, but following the phenomenal

REVENUE RECEIPTS OF THE CENTRAL GOVERNMENT

(Under Main' Heads)



contraction of international trade during the war years they dwindled rapidly. The scope of the income-tax was, therefore, extended considerably through the levy of surcharges and a substantial excess profits tax. The latter was, however, abolished at the end of the war, and the Central surcharges were integrated into the basic tax; the States also became entitled to their share of it. During the war, sugar, matches and steel ingots were subject to the levy of Central excise duties. Duties on tobacco, vegetable products, betel-nuts, tea and coffee, also introduced at about the same time, have since become part of the tax structure of the country.

In 1947, the volume of international trade rose rapidly and customs revenue once more became a very important source of income. In the budget for 1947-48, direct taxation was increased by the imposition of the business profits tax and the capital goods tax. The rate of super-tax was raised to a maximum of ten and a half annas to the rupee in addition to the basic tax of five annas.

The 1947-48 budget, the last one for undivided India, considerably extended the scope and rate of direct taxation, probably far in excess of the country's taxable capacity. Unless the structure of taxation was realigned, it was feared that it would sap the productive forces in the economy. The capital market had also been adversely affected.

The fiscal policy of the Government in the post-partition period has in consequence been governed by three objectives. (1) It was imperative that the Government should be able to exploit every source of income in order to fulfil its commitments. (2) Taxation had to be re-orientated in order to mitigate the depressing effects of the 1947-48 budget on saving and investment. (3) At the same time, it became necessary to allow concessions to industry in order to stimulate production. In spite of the fact that the Government of India has had to meet unforeseen commitments, the aggregate revenue surplus in the budgets

for the period 1947-52 was Rs. 2,979 million; this has contributed to the capital budget.

Export duties have been useful, both as a source of revenue and as a means of fighting inflation. Indeed, import and export duties are an important feature of fiscal policy. They are often levied to raise additional revenue and occasionally to discourage the import or export of certain commodities; in the latter case, the tax element is less conspicuous. An import duty on luxury goods is, in fact, a revenue-bearing tax. On the other hand, a duty on consumer goods, which has local substitutes, is normally intended to discourage the import of that commodity. In the case of jute manufactures, for instance, India is almost a monopolistic seller and during 1950 the industry enjoyed a period of unusually high prices. It was therefore felt that some part of the windfall earnings should accrue to the exchequer. Import duties are also levied sometimes to protect indigenous industries against foreign competition in the early stages of their development.

Since customs duties have such manifold functions, they are subject to constant review in the light of changing economic conditions. In 1938-39, export duties were levied only on jute and rice, and they contributed Rs. 41 million to the exchequer out of a total revenue of Rs. 430 million. In 1951-52, export duties covered ten commodities and brought in Rs. 877 million out of a total revenue of Rs. 2,320 million.

INFLATION

When the war came to an end, it was inevitable that prices should remain high. Production had not increased sufficiently to offset the increase in either the quantity of money or the velocity of its circulation. From 244.4 in 1945, the index of wholesale prices rose steadily during 1946-47, and more rapidly to 361.1 in 1948. On June 1951, it stood at 456.3.

Though the supply of money had not risen significantly during the post-war years, consumer goods and services

continued to remain in short supply, while the demand for them expanded considerably during the six years of post-war austerity. The Korean war and the stockpiling and rearmament programmes of certain countries created a fresh demand for strategic raw materials, giving a further fillip to inflation. Also, production had suffered as a result of partition. Owing to difficulties in the supply of raw materials, the jute and cotton textile industries were not able to utilize their capacity. The transport system, heavily overworked during the war for want of replacements, was found inadequate for the needs of industry and there were inevitable delays in the movement of raw materials.

Determined attempts had therefore to be made to check rising prices, and several measures were adopted for the purpose. To skim off the surplus purchasing power held by the community, the Government took recourse to increased taxation and borrowing. Additional import duties were levied on luxury goods, such as motor cars and silk fabrics, as well as an excise duty on fine cloth. Also, certain export industries which had enjoyed relative prosperity were subject to export duties. Jute manufactures found a ready dollar market at fairly high prices, particularly after the devaluation of the rupee, and it was felt that the resultant advantage should be shared equitably between the Indian manufacturer, the foreign importer and the public exchequer. Further, the income-tax was collected by a provisional assessment of the returns submitted by the assesseees, and a system of interest-bearing deposits for income-tax was revived, as during the war. Temporary limits were placed on the distribution of dividends by public companies.

AID TO INDUSTRY

In order to stimulate production, the industrial interests in the country had to be granted fiscal and other concessions. New industrial undertakings were therefore exempted for the first five years from the payment of income-tax, subject to a maximum of six per cent of the

value of capital. The rules governing depreciation allowances were also relaxed.

The 1947-48 budget had exercised an adverse influence on saving and investment, and both public borrowing and equity investment had thus remained at low levels. In the 1948-49 budget, the rates of the business profits tax and the super-tax were therefore considerably reduced. The tax on undistributed profits was reduced to enable industrialists to plough back some of their profits into business. In the succeeding year, the capital gains tax was abolished, and in 1950-51, the business profits tax discontinued. Thus the process of graduated reduction in direct taxation was carried out during the course of four years. Wherever possible, imports of raw materials, consumer goods and capital equipment were liberalized. Inside the country, speculation in commodities was prevented through administrative and legislative measures. The credit policy of commercial banks was also subject to strict control.

A systematic drive was launched to encourage savings in the private sector, and a number of measures adopted to extend banking facilities in the rural areas.

Thanks to these measures, there has been a steady fall in prices from July 1951 onwards. From the peak figure of 462 in the middle of April 1951, the index of wholesale prices dropped to 428.8 in January 1952 and to 364.9 in March of the same year. Between January and March, the fall in the prices of foodstuffs was estimated at 15 per cent, raw materials at 33 per cent and manufactured goods at six per cent. This was all the more commendable as it was achieved simultaneously with significant increases in all spheres of production. Though the fall in prices was not peculiar to India, the Government's disinflationary policy had salutary effects on the economy. Soon after, the Government decided to discontinue export duties on certain commodities, such as oil-seeds, and decrease the rate of levy on others like jute.

India was able to build up huge sterling credits during

World War II through unrequited exports to the Allies. A part of these assets was utilized to repay the country's outstanding sterling debt. At the end of 1945-46, India's sterling balances amounted to Rs. 17,330 million. An important factor which has influenced India's foreign trade is the rate of release of these sterling balances and their limited convertibility into dollars. The sterling balances, the chief means of financing India's surplus imports of food and capital equipment, have been utilized strictly in accordance with the terms of agreement periodically concluded with the U.K. According to the latest agreement, reached in June 1951, Britain will release Rs. 470 million annually for a period of six years.

On the date of partition, the sterling balances stood at Rs. 15,160 million. Until March 1952, India had drawn only Rs. 7,930 million leaving a balance of Rs. 7,230 million. The amount withdrawn includes Rs. 2,010 million paid to Pakistan as her share of the balances. A sum of Rs. 2,960 million was also paid to His Majesty's Government as the capitalized value of pensions for British officers and as payment towards the surplus defence stores taken over by India. By the end of March 1952, Rs. 2,960 million had been withdrawn from the sterling balances to meet the country's current deficits in foreign trade.

CAPITAL FORMATION

In 1947, the investment in securities and equities was at a low ebb and partition further reduced activity in the investment market. Owing to the haphazard development of banks and insurance companies in India, institutional investments also did not play any significant part. Constitutional and agrarian reforms undertaken by the Government in the post-freedom phase had profoundly influenced the structure of classes in Indian society. The rulers of the princely States and landed interests were no longer able to subscribe to Government loans to the same extent as they had done at one time.

It has been the constant endeavour of the Government

to restore confidence in the investment market and so realign the tax structure as to increase the "unspent margin" of the taxpayer. In 1951-52, for instance, direct taxes accounted for 42 per cent. of the Centre's revenue while the corresponding proportion in the U.K. for the year 1950-51 was 54 per cent. That the Government's policy had the desired effect on savings and investment is borne out by the fact that it has been able to borrow Rs. 2,160 million from the market during 1947-51.

In recent years, in India as elsewhere, the distribution of the national income among the various classes has undergone striking changes. All over the world, social inequalities are being removed and the savings of a small class of financiers are being gradually replaced by corporate and small savings. In 1943, an organization was set up to foster a small savings movement in the country. For the four years between 1947-51, small investors had provided the Government with a capital of Rs. 1,030 million.

BANKING

An indispensable condition for the adequate flow of money into public issues and equities is a sound banking system. The Banking Companies Act, passed in 1949, consolidated the existing provisions relating to banking and added new ones. This Act also empowered the Reserve Bank to control and regulate banking in the country at large. The Reserve Bank of India has now been nationalized and given wide powers of regulation and supervision. The Act was amended in 1949 to facilitate the quick amalgamation of banks which proved uneconomic as independent units. The Reserve Bank has set up a separate Department of Banking which maintains close watch on the affairs of member banks. The prompt assistance lent by the Reserve Bank to banks in temporary difficulties has had a stabilizing influence on banking in the country.

The banking habit is not yet popular in rural India and the savings of the peasant community are either put away or often invested in the precious metals, leading to an

uneconomic use of cash. In spite of the considerable expansion of banking facilities in the rural areas, the problem remains unsolved. A committee was therefore appointed in 1949 to explore ways and means of mobilizing rural savings and extending banking facilities to the villages. A number of its recommendations has already been implemented.

The Government adopted three measures to relieve the shortage of capital in the private sector. Firstly, an Industrial Finance Corporation was set up with an authorized share capital of Rs. 100 million to grant medium and long-term loans to public limited companies and co-operative societies. So far, the Corporation has sanctioned loans amounting to a little over Rs. 90 million.³ Secondly, a Rehabilitation Finance Administration was created to give financial aid to displaced persons to set up in business and industry.⁴ Thirdly, the Government itself granted loans to certain large industrial concerns which could not raise enough capital to expand their business.

INSURANCE

Insurance is a form of community saving, which is open both to the Government and the private sector for investment. The savings of the public in the hands of insurance companies has been estimated at Rs. 2,000 million, and the Insurance Law of 1938 was amended in 1950 to ensure the proper regulation of insurance business and its rigid separation from banking. The amending Act has made it difficult for financiers to control the affairs of insurance companies, or to use insurance funds for speculation. On the whole this new legislation has had a beneficial effect, and provided increased security to the policy holders.

³ See Ch. 11.

⁴ See Ch. 21.

CHAPTER XIII

EDUCATION

"THERE is no country," says Professor F. W. Thomas, "where the love of learning has so early an origin, or has exercised so lasting and powerful an influence." In ancient India education was fostered by the State and its influence widespread. There existed a network of educational institutions, hermitage schools, monasteries, guild schools, academies and universities in the country.

The Universities of Taxila, Nalanda, Kanchi, Madura, Vikramasila, Odantapuri, Nadia and Banaras were famous seats of learning and research in the humanities and sciences. Some of them are reputed to have specialized in specific studies. Thus Tanjore offered courses in the fine arts, literature and the sciences, Kalyan in law and astronomy and Paithan in legal and scientific studies. Kalyan and Nalanda were visited by eminent foreign scholars and itinerants.

Some of these educational institutions survived into the Middle Ages. During this period *maktabs* (schools) were opened all over the country and *madrasahs* (colleges) established at Delhi, Lahore, Rampur, Lucknow, Allahabad, Jaunpur, Ajmer and Bidar. The curriculum often included a specialized study of grammar, logic, law, rhetoric, natural philosophy, metaphysics, physiology, geometry and astronomy.

In the first half of the nineteenth century, the British introduced the western system of education with English

as the medium of instruction. Their immediate aim was to create a class of low-paid functionaries to help them in the administration of the country. Facilities for technical and vocational education and research were therefore few and far between. Primary education was also badly neglected and the figures for literacy never rose above fifteen per cent during the British period. The impact of western political thought and scientific outlook, however, quickened the Indian spirit and fostered widespread political consciousness.

POST-FREEDOM PHASE

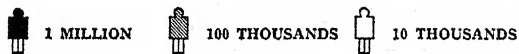
Faced with the problem of reorientating the system of education to suit the needs of a free people, the National Government accepted the following four-fold programme :

1. The provision of free, compulsory basic education for all children of school-going age.
2. Social education including the training of illiterate adults in literacy, hygiene, farming, village crafts, corporate living and citizenship.
3. Improvement and expansion of technical education.
4. Reorganization and improvement of university education.

In consultation with the States, the Central Ministry of Education has prepared a sixteen-year scheme to introduce free and compulsory basic education and a ten-year plan for social education to eradicate illiteracy among adults of 45 years age or less. The programme recognizes that, though a general pattern of education should obtain throughout the country, it must admit of diversity in details to suit local conditions and needs.

The Central Ministry has decided to begin with the compact State of Delhi at the outset. This experiment might perhaps serve as a model for the national programmes of basic and social education. In Delhi, new teachers are now being trained in the basic system, old teachers receive "orientation courses" and crafts are being added to the existing elementary schools. An intensive programme of

EDUCATION IN INDIA (ENROLMENT) 1949-50



UNIVERSITY DEPARTMENTS  = 17,000

COLLEGES FOR GENERAL EDUCATION  = 260,000

COLLEGES FOR PROFESSIONAL AND SPECIAL EDUCATION  = 58,000

SECONDARY SCHOOLS  = 4,717,000

PRIMARY SCHOOLS  = 17,422,000

PROFESSIONAL AND SPECIAL SCHOOLS  = 786,000

social education has also been launched and the new technique of educational *mela* developed. Caravans, which seek to enthuse the people in the programmes for social education, visit the villages at regular intervals. These caravans consist of four vans, one of which serves as a model stage and another as a cinema. The other two carry mobile exhibits relating to public health, agriculture and village crafts. After the caravan has visited the village, a group of teachers carry on an intensive programme of social education for both men and women. A Janata College has also been established at Alipur, a village about 12 miles away from Delhi, to train village leaders. Selected young men from rural areas receive intensive training in different aspects of social education which is specially designed to equip them for rural leadership.

It is also proposed to reorganize secondary education in the country. A Secondary Education Commission with Dr. A. Lakshmanaswami Mudaliar as chairman has been set up to conduct an exhaustive survey of the subject. Various steps have been taken both by the Centre and the States to improve facilities for the training of teachers. The Central Institute of Education at Delhi serves as a training centre for teachers from all over the country and

**PROFESSIONAL AND
SPECIAL SCHOOLS**



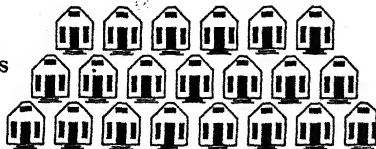
≈ 26,100

SECONDARY SCHOOLS



≈ 19,700

PRIMARY SCHOOLS



≈ 207,000

Each symbol = 10,000

UNIVERSITIES
Each symbol=10



= 28

**COLLEGES FOR
GENERAL EDUCATION**
Each symbol=100



= 470

**COLLEGES FOR
PROFESSIONAL AND
SPECIAL EDUCATION**
Each symbol=100



= 284

also conducts research on various educational problems. The Vinaya Bhavan at Santiniketan is attempting a novel method of training in basic education with special emphasis on both fine and applied art.

The Government has adopted various measures to increase the facilities for scientific and technical education. A large number of scientists and technicians were sent abroad for higher training. A chain of National Laboratories in various fields of science and technology have been set up. Facilities for research and post-graduate education have been considerably expanded in universities and other institutions of comparable status. The Indian Institute of Science at Bangalore and the newly established Indian Institute of Technology at Kharagpur are outstanding examples. To encourage research in both fundamental and applied science, promising young men and women are being awarded scholarships.

In 1948, the Government appointed the University Education Commission under the chairmanship of Dr. S. Radhakrishnan. The Commission, which submitted its report in August 1949, made far-reaching recommendations for the reconstruction of university education in India. The main body of recommendations has been accepted in principle and the necessary legislation enacted to carry out

the improvements suggested for the Universities of Delhi, Aligarh and Banaras. As recommended by the Commission, the Visva-Bharati founded by Rabindranath Tagore has been constituted into a Central university.

Before freedom came, there was little scope for the development of Indian art—dance, drama, music and theatre. India is anxious to preserve and develop the valid elements in her cultural past. An Academy of Dance, Drama and Music will soon come into existence and Academies for Letters and the Visual Arts are also being envisaged. The Government have instituted the President's Certificates to be awarded to the four most distinguished musicians of the year. Scholarships have been given to deserving painters to enable them to develop their art in closer contact with rural life.

A National Commission for co-operation with UNESCO has been set up and a special section in the Central Ministry of Education is charged with the task of maintaining cultural relations with other countries. At the invitation and with the assistance of the Government of India, UNESCO held its first Asian Seminar in Mysore, when delegates from twenty countries participated in a discussion on the problems of rural adult education. Similarly, UNO held its first Asian Seminar at Simla on youth welfare. In co-operation with UNESCO, a pilot library project has been established in Delhi for the benefit of neo-literates, children and the general reading public. This is intended to serve as a model for similar libraries to be set up elsewhere in the country.

The Indian Council of Cultural Relations, inaugurated in the summer of 1949 by India's Prime Minister, seeks to promote cultural relationships with neighbouring countries. The Council brings out an Arabic magazine and proposes to bring out a similar magazine in Persian. A chair of Sanskrit was established at Tehran University and books on Indian culture and history and Sanskrit literature have been presented to selected libraries in Afghanistan, Burma, Indonesia, Japan, Persia and Turkey.

Every year India offers about a hundred scholarships to students from abroad for study in India. A professor of Indian History and Culture was sent to National Peking University and a professor of Hindi to Rome and Berlin Universities. Teachers were also sent to Tasmania, Zanzibar, Afghanistan, Malaya and Ethiopia and several scholars and educationists from other countries have been invited to visit India.

The Government of India have also taken preliminary steps to establish a National Museum by bringing together valuable specimens of Indian art, some of which have a history of nearly five thousand years. An inventory of valuable Indian art objects to be found in foreign countries is also being prepared. Wherever possible, it is proposed to acquire originals or alternatively copies executed by competent experts. Legislation has been enacted to prevent indiscriminate export of valuable art objects from the country. A Gallery of Modern Indian Art is also to be built up gradually and the Government of India has, in co-operation with some of the State Governments, instituted a fund for the purchase of outstanding works.

Though there are several competent works on the philosophy of particular regions and continents, there has as yet been no comprehensive account of the development of human thought in different countries and of different ages. The Government of India has therefore secured the co-operation of about sixty scholars from various parts of the world to produce a book entitled *History of Philosophy : Eastern and Western*. It is expected to be published shortly.

Figures will serve to give some idea of the educational progress made during the five years that have elapsed since India became free. As against Rs. 205 million spent by the former British provinces on education during 1946-47, Rs. 470 million were spent during 1951-52. This increase only partially reflects the growth of interest in educational, artistic and cultural activities, for the number of voluntary and private agencies who to-day share in such activities is far greater than at any other time in the past.

CHAPTER XIV

HEALTH

PHYSICAL well-being is certainly an important aspect of the health of a nation, but perfect health is a more inclusive concept. It suggests a well-adjusted relationship between man and his physical, mental and social environment, so that in any programme of national development, every branch of activity has something to contribute towards a healthy way of life.

Medical relief and public health are State subjects under the Constitution, but the Central Ministry of Health plays an important role in co-ordinating the activities of the health administrations of the States. The Centre has helped the States to develop the medical, dental, nursing and pharmaceutical professions and to enforce uniform standards. The Centre maintains liaison between the States on the one hand and foreign countries and international health organizations on the other. It is solely responsible for international "health relations" and the administration of quarantine at the ports.

Among the health institutions in the country, administered and controlled by the Central Government, the All India Institute of Hygiene and Public Health in Calcutta, the Malaria Institute of India at Delhi, the Central Research Institute at Kasauli, the Serological Laboratory and the Central Drugs Laboratory are the more important. The All India Institute of Hygiene and Public Health at Calcutta is the only one of its kind in the south-east

Asian region and trains personnel for dealing with problems of public health. On behalf of WHO, health personnel from south-east Asian countries are now being trained at this institution. The Malaria Institute conducts research on the origin, incidence and cure of this disease; it also directs anti-malaria operations in the Centrally administered areas. It advises the States on anti-malaria work and trains "malaria-workers" for them. The Institute also undertakes research on other mosquito-borne diseases like filariasis, and is a training centre for personnel from south-east Asian countries.

RURAL HEALTH

In the States the problem of health is one of providing medical relief to the rural population. In recent years, the State Governments have become increasingly aware of the magnitude of the problem and various attempts have been made to extend medical relief to the rural areas. Several State Governments subsidize individual practitioners with a view to inducing them to settle in rural areas on the condition that poorer sections of the population will be treated free of charge. A number of mobile dispensaries, which undertake periodic visits to neighbouring villages, have been put on the road. In addition to their other functions, village co-operatives are also being encouraged to provide medical relief to their members.

TRAINING AND RESEARCH

In order to train more doctors and nurses, most of the States have upgraded the medical schools to the standard of medical colleges. The standards of medical education have been improved and made uniform in all the States. Delhi University has already started a diploma course in tubercular diseases and a Tuberculosis Institute will be opened shortly. It has received grants from the Government for this purpose. Also affiliated to the University is the College of Nursing which offers a B.Sc. (Honours) course in nursing. The College is maintained by the

Government of India. The Lady Hardinge Medical College in New Delhi, the only institution of its kind in India, is reserved exclusively for women students.

The Government of India has decided to develop post-graduate departments for specialized study and research wherever facilities exist. In collaboration with the trustees of Sir Dorabji Tata Trust and the Tata Memorial Hospital, it was decided to set up a Cancer Research Centre at Bombay for post-graduate study and research in the incidence and cure of cancer and allied problems. An initial sum of Rs. 300,000 and another non-recurring grant of Rs. 245,000 for the period 1950-52 was paid by the Government to the Trustees for the construction of the laboratory. The Research Centre will in addition receive Rs. 100,000 every year to meet the expenditure on its staff. The Christian Medical College at Vellore was sanctioned a non-recurring grant of Rs. 1 lakh in 1950-51 for upgrading its thoracic surgery department. In the same year, the Government of Bihar received a similar grant of Rs. 55,000 with which to upgrade the physiology department of the Patna Medical College. It is proposed to give the Madras Government an initial grant of Rs. 59,850 and a recurring grant of Rs. 164,000 for upgrading the anatomy and the venereal diseases departments of its medical colleges and the obstetrics and gynaecology department of the hospital for women and children at Madras.

RESEARCH

Medical research is being carried on at the Central Research Institute at Kasauli, the All India Institute of Hygiene and Public Health in Calcutta and the Malaria Institute of India of Delhi. The Nutrition Advisory Committee has done good work during the last three years and several States have appointed special officers in their public health departments to conduct diet surveys and advise the Government on measures necessary to improve the food habits of the people. It is proposed to introduce

a bill in Parliament shortly with a view to preventing the adulteration of foodstuffs.

To foster research on medicinal articles, which are either imported or manufactured in the country, the Therapeutic Trials Sub-Committee was first appointed in 1948. This Sub-Committee is a standing committee of the Scientific Advisory Board of the Indian Council of Medical Research and draws up a schedule for the year's research on drugs. Therapeutic tests to determine the efficacy of sulpha drugs in the treatment of cholera have been carried out in West Bengal and Bihar. The efficacy of streptomycin in the treatment of tuberculosis and plague has also been determined. Investigations are being carried out on the nature and cure of dropsy, malaria, leprosy and other epidemics. Leprosy has been a scourge for centuries in certain parts of India and Rs. 44,000 was given to the Indian Council of Medical Research during 1951-52 for the study of problems associated with leprosy.

INDIA AND WHO

India has received considerable assistance from international health organizations. WHO and UNICEF have helped the country in the campaigns against malaria, venereal diseases and tuberculosis. Anti-malaria work was started with the aid of WHO teams in Terai (U.P.), Jeypore Hill Tracts (Orissa), Malnad (Mysore) and Ernad (Madras). To combat venereal diseases in Himachal Pradesh, an organization was set up in the State with the aid of WHO experts. Foreign personnel have now been withdrawn and trained Indian personnel are carrying on the campaign against the disease.

TUBERCULOSIS

Nearly 2.5 million persons suffer from tuberculosis in India and half a million die of it every year. In order to reduce the incidence of the disease, a programme of B.C.G. vaccination was launched in 1948 with the aid of WHO. A B.C.G. centre was opened at Madanapalle and another

at Delhi. A modern laboratory was set up at Guindy in Madras to produce B.C.G. vaccine. The laboratory is now not only able to produce sufficient vaccine to meet India's requirements but is able to supply moderate quantities of it to certain south-east Asian countries. The vaccination programme is now being carried out on a mass scale and extends to almost all the States; teams of specialists and supplies are provided by WHO and UNICEF. It has been estimated that a hundred million people will need to be vaccinated to render them immune to this terrible disease. By the end of April, 1952, about 7.8 million persons had been tested and 2.5 million vaccinated.

In collaboration with WHO and UNICEF, three anti-T.B. centres have been established to train Indian personnel and to demonstrate modern methods of controlling T.B., one each at New Delhi, Patna and Trivandrum. It is proposed to establish two more centres this year.

Anti-yaws campaigns will shortly be launched in Madras, Madhya Pradesh and Hyderabad with the help of WHO and UNICEF. The Government of India has agreed to the creation of a Department of Maternity and Child Health at the All India Institute of Hygiene and Public Health in Calcutta to serve as a national training centre and for the first five years, UNICEF has agreed to provide trained staff and equipment at an estimated cost of Rs. 4.5 million and the Government of India will invest an equal amount. In return, India has agreed to train 250 students chosen by UNICEF for the purpose. The Department is expected to start functioning by July 1, 1953.

With the collaboration of UNICEF and WHO, it has been decided to build a factory at Poona to manufacture penicillin and another at Delhi to produce DDT. UNICEF will provide the plant and WHO the technical assistance.

The Government of India has decided to initiate a programme of studies in family planning. To begin with, three experimental units will conduct pilot studies on the "rhythm" or the safe period method.

CHAPTER XV

LABOUR

TODAY, India's labour force is distributed among the various occupations as follows :

Factories	2,900,000
Plantations	1,200,000
Railways	900,000
Mines	500,000
Merchant Navy	65,000
Posts and Telegraphs	175,000
Central Public Works Department ..	400,000
Ports	60,000
Municipalities	300,000
Tramways	14,000
Motor Transport	30,000

When the National Government assumed power, it was faced with a most delicate problem. The alignment of productive forces, particularly the relations between capital and labour, did not conduce to maximum productivity and the war had aggravated the serious economic situation. Apprehending reduced profits, employers set about rationalizing their establishments. Labour, on the other hand, hit by rising prices and increased costs of living, demanded higher wages and a larger share in profits. Their conflicting needs led to strained relations at a time when the economic situation required utmost co-operation between

the two. The crisis had first to be resolved before any improvement in the conditions of labour was possible.

Accordingly, one of the first acts of the new Government was to convene a tripartite conference of employers, workers and representatives of the Government. This conference passed the Industrial Truce Resolution which, while recognizing the legitimate needs of labour, called upon employers and workers to co-operate in industrial activity by preventing strikes and lock-outs for a period of three years. It also suggested mutual discussions as a fair means of settling disputes. This resolution was accepted by the Government in April 1948. In September, a Central Advisory Council for Labour was constituted and a number of tripartite bodies were set up in the various industries. The Industrial Disputes Act was passed in 1947 to replace the defective Trade Disputes Act of 1929.

SOCIAL SECURITY

The most important piece of legislation on labour welfare is the Employees' State Insurance Act, the first of its kind in south-east Asia. It was placed on the statute book in April 1948 and amended in 1951. The Act aims at providing the workers with security against sickness, maternity, injury and disability or death during employment. The scheme has been introduced in Delhi and Kanpur where it covers nearly 135,000 workers. Ultimately, it is designed to provide security for 2.5 million workers in all perennial factories employing 20 or more persons and using power. Meanwhile, the Government is considering the question of extending the programme in stages so as to cover the entire industrial population of India by July, 1954. An Employees' State Insurance Corporation has been set up in which the Central Government, the State Governments, Parliament, employers, employees and the medical profession are represented. For its finances, the corporation depends upon contributions from employers and employees. The workers have been divided into eight wage groups for purposes of contributions. If,

in the first place, the scheme had been introduced only in selected regions, it would have weakened the competitive ability of industries which came within the scope of the measure. It was therefore decided to distribute the employer's contributions equitably among all employers in the country, the employers in the regions where the scheme was in force paying slightly higher contributions. The need for this provision will, however, be obviated when the scheme is extended to cover the whole country. It is expected to cover 2.5 million workers in the course of the next four to five years and will eventually be extended to all categories of employees.

Another step towards social security is the Provident Fund Scheme under the Coal-mines Provident Fund and Bonus Schemes Act of 1948. According to this, every coal-minor earning less than Rs. 300 a month subscribes to the Fund. Membership is compulsory and the employer contributes an equal amount. Every member is eligible to a bonus, at present fixed at a third of his basic earnings, subject to satisfactory attendance.

The Employees' Provident Fund Act of 1952 enjoins the institution of provident fund facilities on all factories and establishments. At present, it applies to factories engaged in the production of cement, cigarettes, iron and steel, paper, textiles and electrical, mechanical and general engineering goods, and employing 50 or more workers. Every worker, who has been in continuous service for a year and earns Rs. 300 a month or less, is entitled to the benefits of the Fund. The worker subscribes a sixteenth of his monthly emoluments, an equal amount being payable by the employers.

To compensate the workers for difficulties arising from the casual nature of employment in certain vocations, the Government has introduced certain decasualisation schemes. The Dock Workers (Regulation of Employment) Act, passed in 1948, authorizes the Central Government to frame schemes with a view to regularizing the employment of dock workers. This Act is already in operation in Bombay,

but the scheme is at present limited only to stevedore workers. Under another scheme introduced at Kanpur in 1950, jobbery has been completely stopped in the mills. They now recruit labour exclusively through the regional offices of the Employment Exchanges. A similar scheme was introduced at Beawar in Ajmer-Merwara on November 1, 1950.

Fair wages are a vital part of any scheme of social security. The Government's attempts at regulating wages led to the Minimum Wages Act and the Fair Wages Bill of 1948, covering industrial, agricultural and plantation labour. The Act provides for the fixation of a minimum time rate, a minimum piece rate and an over-time rate. The fair wages, suggested by the Fair Wages Bill, are a compromise between the living and the minimum standards. As long as the cost of living index exceeds a slab of 150 to 200, a fair wage consists of a basic rate plus a cost of living allowance, adjustable according to the scales prescribed by the Government.

LABOUR RELATIONS

The Labour Relations Bill, introduced in Parliament in February 1950, represents the first comprehensive law on the subject. It supersedes the Industrial Disputes Act of 1947 and other legislation of the States. The Bill, however, lapsed when the last Parliament was dissolved before the general elections. Meanwhile, a questionnaire on industrial relations has been circulated among the various parties with a view to arriving at the largest measure of agreement on all important and controversial issues.

LABOUR WELFARE

Labour welfare has received the Government of India's earnest attention since 1947. Commendable improvements have since been achieved in the living and working conditions of the workers. Welfare funds have been instituted in almost all the industrial undertakings under the control of the Central Government. These funds were largely spent

on the provision of facilities for recreation and entertainment, reading-rooms and other amenities for workers and their dependents.

The general living conditions in factories and other industrial undertakings in the country are governed by the Factories Act of 1948. It ensures that no one will employ workers without first guaranteeing their safety, health and welfare. Some of the important provisions of this Act relate to the hours of work, privileges relating to leave, occupational diseases and child labour.

It covers all industrial establishments, which do not use power but employ twenty or more workers, and other establishments, not using power but employing twenty or more workers. In all, about three million workers benefit by this Act. To finance welfare activities in the coal-fields, a cess is levied on the coal and coke dispatched from the collieries.

MINES

A great deal of work has already been done for the collieries. Baths have been set up at the pitheads, women's welfare centres started and medical facilities provided. No effort has been spared to ensure the prevention and cure of diseases. Rules prescribing the provision of creches for miners' children are being strictly enforced, and maternity benefits amounting to Rs. 100,000 are being paid annually. Four regional hospitals have already been built in the Jharia and Raniganj coal-fields and they will soon have a T.B. clinic each. A hospital with 130 beds is functioning at Dhanbad and another is being built in Asansol. A hospital with a maternity centre at Phusro in the Bokaro collieries, a blood bank at Asansol and T.B. clinics at Katras and Searsole have all been sanctioned, and their construction will commence shortly. Extensive anti-malaria operations are being carried out in the coal-mines. Also, several adult education centres have been opened in the coal-fields. Other facilities provided for the colliery workers are canteens, fair-price shops, and radio

sets. A scheme to open twenty multi-purpose welfare centres for the education and recreation of colliery workers and their women and children was also approved during 1951-52.

Welfare activities for mica-workers are financed from the Mica-miners' Welfare Fund. Several dispensaries, hospitals and maternity centres at mica-mines in Bihar and Madras have been opened and more are being constructed. A scheme to train miners' children as workshop apprentices has also been sanctioned.

DOCK WORKERS

The Government has appointed welfare officers at the major ports to look after the interests of dock workers and provident fund schemes have accordingly been drawn up. For the benefit of seamen, Central Government further runs clinics, tea stalls and canteens. Rest shelters have been provided at some ports and a hostel for Indian seamen has been built at Bombay. A similar scheme is in progress at Behala, near Calcutta.

HOUSING

In April, 1948, the Central Government announced that a million houses would be constructed in ten years. During 1950-51, a loan of Rs. 10 million was advanced to the Governments of Bombay, Madhya Pradesh, Bihar and Orissa to enable them to proceed with the industrial housing scheme and another grant of Rs. 16.8 million was made to the Governments of ten States during 1951-52. The Government of Bombay proposes to distribute a sum of ten million rupees as loans to co-operative housing societies. It has been decided to spend Rs. 3.5 million on the construction of tenements for textile workers at Indore. Also, colliery workers are encouraged to build houses through a scheme of subsidies. Twenty per cent of the cost of construction up to a maximum of Rs. 600 is granted from the Coal-miners' Welfare Fund. This scheme has

now been extended to cover all the States except Jammu and Kashmir.

AGRICULTURAL WORKERS

In so far as labour legislation affects the agricultural workers of India, they are covered only by the Minimum Wages Act of 1943. Before anything could be done for their improvement, a country-wide enquiry into their conditions was necessary even if it were on a modest scale. Data on employment, earnings, the cost of living and debts incurred by the farmer were collected from 27 villages in various States in 1949. This experience was utilized to formulate a fresh questionnaire for a nation-wide enquiry covering over 800 villages, selected on the basis of stratified random sampling. Legislation pertaining to agricultural labour will be enacted on the basis of the results of this enquiry. Minimum wages for agricultural workers have already been fixed in the Punjab, Delhi, Ajmer, Bilaspur, Himachal Pradesh, Kutch and in the Patna district of Bihar.

PLANTATION LABOUR

Judged by the capital invested, the value of production or the number of workers employed, the plantations are among the biggest organized industries in India. The Plantation Labour Act passed in 1951 aims at regulating the conditions of work in the plantations. It requires the employers to provide such medical facilities for the workers as the Government may prescribe and makes it obligatory for them to provide every worker and his family with a house, I.L.O. has agreed to lend the services of an expert who will organize vocational training for plantation workers.

TRADE UNIONS

The National Government has always recognized labour's right to the freedom of association and collective

1946-47
1947-48
1948-49

Year

Number of registered trade unions

1,725
2,766
3,150

Number of unions from which returns
under the Act were received

998
1,628
1,848

Men

1,267,164
1,560,630
1,831,514

Women

64,798
1,022,991
1,193,551

Total

1,331,962
1,662,929
1,960,107

Average membership of unions
submitting returns

1,335
1,021
1,061

Percentage of women

4.9
6.2
6.1

bargaining. To that end, it has attempted to foster a strong, responsible, self-reliant trade union movement. The war had served to increase the number of trade unions, but the movement did not develop along proper lines. The existing law, governing the affairs of trade unions, was found to be inadequate. A new Trade Union Bill was therefore introduced in Parliament in 1950.

This Bill sought to guarantee trade unions the right to negotiate with employers and penalized unfair practices on the part of both employers and trade unions. This Bill has also lapsed with the last Parliament. Fresh legislation to replace this will be enacted as soon as sufficient data have been collected through the questionnaire on industrial relations.

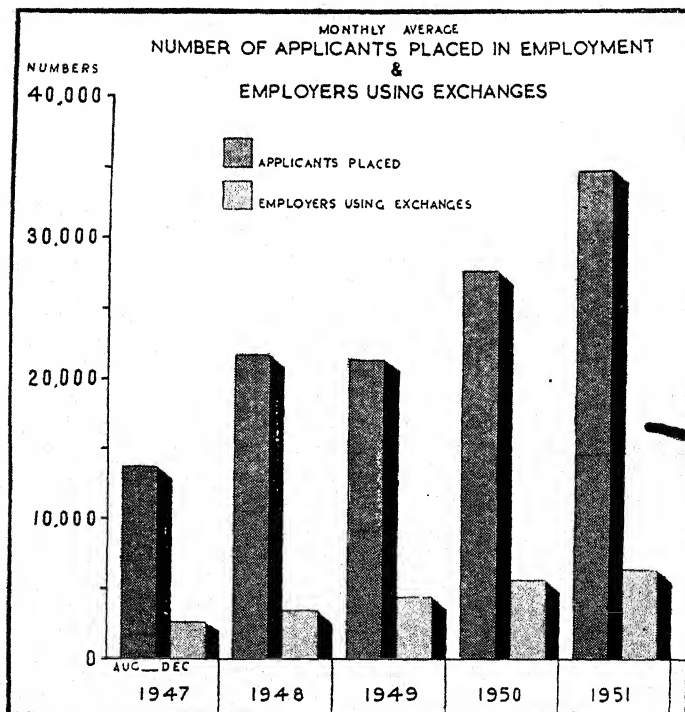
The Indian National Trade Union Congress, formed in 1944, has now grown into the largest representative organization of Indian workers. Its object is constructive and ameliorative work among labourers and the settlement of trade disputes through arbitration. The Hind Mazdoor Sabha and the All India Trade Union Congress are also among the better known workers' organizations.

EMPLOYMENT AND TRAINING

The National Employment Service was established in 1945 and did memorable work in the resettlement of ex-servicemen. The influx of displaced persons from Pakistan created a difficult situation and they had to be resettled in suitable occupations. Under schemes sponsored by the Government, 31,340 persons were trained for various vocations; of these 22,030 were ex-servicemen and the rest displaced persons from Pakistan. Within three years of its inception the portals of the service were thrown open to employment-seekers of all kinds. It has now grown into a country-wide organization which serves every citizen. There are at present 128 Employment Exchanges, grouped into ten regions, each under the administrative control of a Regional Director.

Year	Registrations	Placements	Average number of employers using Exchanges monthly
1945	51,306	9,780	442
1946	569,872	106,208	2,569
1947	629,961	161,374	3,191
1948	870,904	260,088	3,420
1949	1,066,351	253,809	4,519
1950	1,210,358	331,193	5,564
1951	1,375,351	416,858	6,364
Jan.-June, 1952	702,649	189,812	6,136

The main function of the Employment Service is to bring employers and would-be-employees together. It



promotes geographical and occupational mobility. It is, of course, inevitable that there should be a shortage of man-power in certain trades and a surplus in others. Also, opportunities for employment are bound to be greater in certain regions than in others. Employment Exchanges thus seek to ensure a balanced distribution of the country's labour force among the various occupations.

TRAINING

The Government has also made arrangements for the training of workers. The earliest schemes of the National Employment Service, drawn up in 1946, aimed at providing technical and vocational training to ex-servicemen. It is only recently that efforts have been made to expand this service to cover civilian personnel, particularly displaced persons.

In 1950, the Government drew up a technical and vocational training scheme for civilian adults, designed to reduce unemployment, by imparting suitable industrial training to educated youth. At present, this scheme is in force at 63 training centres where 32 technical and 26 vocational trades are taught. At these centres, 11,381 persons are being trained of whom 330 are women learning special trades, such as dyeing, cutting, tailoring, embroidery and fruit preservation. The training is free, and half the number of trainees are given scholarships of Rs. 25 a month. The Central Training Institute at Koni in Madhya Pradesh trains instructors and supervisors.

The absence of acceptable standards of training and certification has stood in the way of the improvement of technical skill and craftsmanship in the country. The establishment of an All India Trades Certification Board is under consideration. It will prescribe standards, conduct examinations and award certificates of proficiency in the engineering and building trades.

CHAPTER XVI

RAILWAYS

THE principal means of land transport in India are the railways. On March 31, 1951, they covered a length of 34,079 route miles. The Indian railway system is by far the largest in Asia and the second biggest State-owned enterprise in the world. In 1950-51, it employed 919,747 persons and its gross earnings amounted to Rs. 2,646.1 million. The total capital at charge was Rs. 8,381.7 million. During 1950-51, they covered 41,709.6 million passenger-miles and 27,007.5 million ton-miles of freight.

The Indian railways, overworked during the war, had suffered considerably owing to inadequate maintenance. Partition brought fresh problems; thousands of Government employees who had opted in favour of the one Dominion or the other and millions of refugees had to be transported across the border. In seven and a half months, four million refugees had travelled by rail. In addition, food, cloth and other essentials of life had to be despatched to the refugee camps all over the country. These tasks devolved on the railways at a time when they were being hard put to it to perform their normal functions. Every available wagon was badly needed to move essential articles, such as food, coal, etc., from one end of the country to the other. It was indeed commendable that the railways should have met these demands more than adequately.

With partition, the port of Karachi was lost to India. Cargoes formerly handled by it had now to be moved to

and from the port of Bombay. This imposed an additional strain on the existing lines. Forty-five miles of the railway line between Delhi and Mathura had therefore to be "doubled" at an approximate cost of Rs. 10.36 million. The work was completed in record time and the line opened to goods traffic by 1949.

With the creation of East Pakistan, Assam was cut off from the rest of India and a direct rail link had to be provided through Union territory. The construction of the 142-mile link, a remarkable engineering achievement, was finished ahead of schedule at a cost of Rs. 85 million. Working in bad weather and in swampy and disease-infested areas, workers had to bridge the course of fast-flowing rivers.

At the end of World War II, nearly 30 per cent of the locomotives had outgrown their normal span of life and needed to be replaced. Though the immediate demands were met by imports, the Government felt that the country should ultimately become self-sufficient in vital supplies. A locomotive manufacturing factory was therefore set up as a State enterprise at Chittaranjan in West Bengal.¹

The volume of traffic, particularly the number of passengers travelling by rail, had increased considerably in the course of a decade. Third class traffic had gone up by two and a half times since 1938-39. It is the declared aim of the Government to improve amenities for third class passengers and it has been decided to spend Rs. 150 million for this purpose over a period of five years. The design of the new coaches has been improved and the Hindustan Aircraft Limited has already placed in service a number of third class coaches equipped with electric fans and other amenities. Coaches, incorporating additional improvements, will be manufactured by a factory now being set up at Perambur near Madras. During 1951, 186 new trains were introduced and 75 train services extended. The Janata

¹ See Ch. 11.

Express, made up exclusively of third class bogies, has been introduced in some of the regional systems.

Despite the difficulties in obtaining power and rolling stock, the operational efficiency of the Indian railways steadily increased during the post-war years. To make good these shortages, the Indian railways have launched an extensive rehabilitation programme which forms part of the Five Year Plan for the railways.

One of the most important reforms bearing on railway finance was the revision of the Railway Separation Convention, adopted by Parliament in December, 1949. The revised Convention provides for a development fund to finance (a) increased passenger amenities, (b) labour welfare and (c) projects which are necessary but unremunerative at the time of construction. Following the integration of the former princely states with the Indian Union, their railway systems, covering altogether a distance of 7,500 miles, were also taken over. A scheme to reorganize the entire railway system of the country into six zonal administrative units was then drawn up, and within a year of its adoption, the Southern, Central, Western, Northern, North-Eastern and Eastern zones came into existence.

CHAPTER XVII

TRANSPORT

ROADS

ROADS are another important means of overland transport. India has 118,000 miles of all-weather highways excluding urban roads. They are classified as : the national highways, the State highways, the major district roads and the village roads. The national highways which connect important cities, the capitals of States and major ports with one another constitute the main arteries of communication. The State highways are the main trunk roads of the States, while the major district roads link up subsidiary areas of production as well as markets with distribution centres and form the main link between the headquarters of adjoining districts.

To provide better communications between the cities and villages and the centres of production and distribution, the existing roads are being extended and improved and the missing links filled in. A five-year programme of road development for the period ending 1955-56 has been prepared and is under execution. The expenditure on the national highways and on the other roads has been estimated at Rs. 230 million and Rs. 700 million respectively.

The Government of India has established a Central Road Research Institute at Delhi for the study of technical problems connected with roads and their construction.

The country has approximately 310,000 motor vehicles, consisting of 150,000 private cars, 10,000 taxis, 38,000

passenger vehicles, 75,000 goods vehicles, 28,000 motor cycles and 9,000 miscellaneous vehicles. The bullock cart still remains an important mode of transport for goods, particularly in the countryside, their number being roughly ten millions. Motor vehicles are increasing rapidly and some of the States, such as Bombay, U.P., Delhi and Madras, have nationalized road transport.

WATER TRANSPORT

Ton for ton, mile for mile, it is cheaper to transport goods by water than by rail. The lack of speed can be more than made up by the bulk that can be carried at a time. Fewer men are required to handle the cargo on water than by the railways. The capital and maintenance costs are also less. Consequently, freight charges are about half to a third of the railway rates.

In India, a higher rate of industrial development will largely depend on the adequacy of transport. The length of the waterways, navigable by steamers and country craft, is estimated at 4,000 miles. Unfortunately, however, water transport did not receive the attention it deserved until after partition. The treatment of the river as a unit, irrespective of administrative boundaries, will help in its rational development. Many inter-State rivers are national waterways in every sense, and under the new Constitution, they may be declared a Central subject as required. Navigation is now difficult in several stretches of the river system, because the dry-weather discharges of the rivers are too small for use even by small country boats. River conservancy measures will make it possible for navigation to become an important transport industry in this country.

A number of surveys and investigations have already been carried out to devise measures for the improvement of navigation. A Ganga-Brahmaputra Water Transport Board has been set up to co-ordinate the activities of the State Governments in regard to inland water transport. In collaboration with the Technical Assistance Administration the Government of India proposes to establish a pilot

demonstration project. It will experiment with tugs of shallow draft to tow barges and boats wherever the level of water is low.

SHIPPING

India has a coast line of over 3,500 miles and merchant ships from all important maritime countries call at her ports. Her coastal trade is carried wholly in Indian bottoms. But it is essential that the country has a fair share of its overseas trade also. Steps have been taken to expand the Indian merchant navy and two new Companies, viz., the Hindustan Shipyard Ltd. and the Eastern Shipping Concern Ltd., have been set up accordingly. The Government is a partner in both these concerns and holds a substantial amount of their shares. The shipyard at Vishakapatnam was recently taken over by the Hindustan Shipyard Ltd.¹

There are four institutions which provide training for a career on the sea. They are :

- (i) the training ship, *Dufferin*,
- (ii) the Director of Marine Engineering Training,
- (iii) the Nautical and Engineering College, and
- (iv) the training ships, *Mekhala* and *Bhadra*.

The first three of these train officers for the merchant navy, while the fourth is intended for the training of ratings.

PORTS

Scattered along her vast coast line, India has five major ports and over 200 minor ports of varying capacity. Before partition, the capacity of the ports and India's overseas trade were correlated. At the end of World War II, however, the equipment of the major ports were worn out and had become obsolete. Also, the loss of Karachi left the Punjab,

¹ See section on Shipyard, ch. 11.

north-western and Central India without their natural outlet to the sea. The pressure on the port of Bombay thus increased far beyond its original capacity. The Government has therefore undertaken the construction of another major port at Kandla on the Gulf of Kutch at an estimated cost of Rs. 130 million. It is designed to handle 1.6 million tons of cargo. Simultaneously, the existing ports are being improved and the Five Year Plan envisages the extensive development of the major ports. The Plan ear-marks an expenditure of Rs. 280 million on ports during 1951-56. This includes the provision of new equipment, such as cranes and tugs, and the construction of new transit sheds, warehouses, etc. The Prince's and Victoria Docks of Bombay will be modernized at a cost of over Rs. 40 million and the port of Madras will have an additional wet dock at a cost of Rs. 45 million, capable of accommodating four ships at a time. At Cochin, the main wharf frontage has been reconstructed at a cost of Rs. 4 million and the construction of several berths has been planned.

The minor ports of India were neglected in the past. Their development and the administration of the major ports were not sufficiently co-ordinated. A National Harbour Board has therefore been set up to bring about better co-ordination in the administration of both.

TOURISM

The Government seeks to ensure reasonable amenities to foreign tourists and organize publicity to attract them. The Government has also taken a number of other steps to develop tourism in India. There are Regional Tourist Offices at the major ports of entry. Satisfactory liaison has been established with the State Governments and other relevant authorities at the important tourist centres. Frontier formalities have been simplified and a "Tourist Introduction Card" is issued to all overseas visitors to enable them to secure prompt customs clearance and reservations on the railways, in hotels and dak bungalows.

CHAPTER XVIII

COMMUNICATIONS

POSTS AND TELEGRAPHS

THE Indian Posts and Telegraphs Department has ramifications all over the country. This State enterprise, one of the largest in the world, employs 194,755 persons and has a capital outlay of Rs. 506.3 million. On March 31, 1950, there were 29,671 post offices, of which 21,842 were permanent and 7,849 temporary. There are 7,772 telegraph offices in the country, including 4,362 at canal-heads and railway stations.

On the eve of independence, there were many villages without a post office, the nearest being often a few miles away. One of the important tasks that freedom brought was the extension of postal facilities to the rural areas. During 1947-51, for instance, 10,948, new post offices were opened in these areas and another 410 in 1951-52.

India is a land of vast distances. Sometimes it took three to four days for a letter to be delivered. From April 1 1949, the "all-up air-mail scheme" was introduced to speed up delivery. Under this scheme, wherever transmission by air is possible and advantageous, inland letters and money orders are flown without any additional charge. Meanwhile, the restrictions on the carriage of insured articles by air within the country have been relaxed. To make this scheme possible, the night air-mail service was introduced, and today planes fly with the mail to Nagpur from Calcutta, Madras and Delhi, Nagpur serving as a

clearing station. Simultaneously, an air-mail service between Bombay and Delhi has also been instituted.

In order to expand postal facilities in the towns, mobile post offices have been opened in Nagpur, Delhi and Madras. A van, a complete post office on wheels, visits important centres in the city at fixed hours to collect and carry the day's mail to the aerodrome. Night post offices have also been opened and they work throughout the week.

TELEGRAPHS

The telegraph network in India consists of about 3,500 offices. The telegraph department is one of the largest of its kind in the world, and its open wire lines and modern "voice frequency telegraph links" cover an extensive route mileage. It handles more than 25 million messages every year. It is being modernized rapidly and mechanical aids are being introduced to speed up the telegraphic service.

During the operation of the Five Year Plan, the Government proposes to extend this service to cover small towns and villages with a population of over 5,000. Some of the amenities introduced recently are: local telegrams at reduced rates, priority telegrams in the event of illness or accident, greetings telegrams, etc.

Telegrams in Hindi or any other Indian language written in the Devanagari script are now accepted by the telegraph offices at 22 places. At the same time, the delay in booking telegrams has been reduced by the installation of cash registers at the bigger post offices.

TELEPHONES

As with the postal and telegraphic services, the telephone system had also to be improved and enlarged after 1947. In all, 278 new telephone exchanges have been opened and 142 exchanges extended and renovated. Today, there are 599 telephone exchanges and 179,644 telephones in the country. Most of the new telephone exchanges belong to the urban areas. Public telephone booths, although

often uneconomic, have been set up in the rural areas and the villagers generally use them for long-distance calls.

The "Own Your Telephone" scheme was introduced in December, 1949 in order to raise funds for the extension of telephone facilities. The scheme is now in operation in 15 cities and every subscriber is required to deposit an initial sum of Rs. 2,000 (Rs. 2,500 in Bombay and Calcutta). In return, he is exempted from the payment of rental for a period of twenty years. Sixteen telephone exchanges with 12,320 telephone connections have been set up under this scheme. The total number of subscribers to the new scheme is 13,310 and the deposits so far received amount to Rs. 30.98 million.

To make it possible for small cities to have telephone exchanges, the "Own Your Exchange" scheme was introduced on June 24, 1950. The P. and T. Department thus undertakes to open an exchange at any station if a local chamber of commerce, an industrial concern or even individuals agree to advance a loan of Rs. 50,000 at 2.75 per cent interest, repayable after twenty years.

WIRELESS

Before 1947, India had three wireless stations, one each at Calcutta, Bombay and Madras. Formerly ocean-going steamers were served only by wireless telegraph, while they now use the radio telephone to communicate with the shore and other ships. Three more coastal wireless stations have been opened in the meantime at Mangalore, Ratnagiri and Karwar. Furthermore, the State capitals at Lucknow, Patna, Cuttack, Nagpur, Gauhati, Shillong and Agartala as well as North Lakhimpur, Pasighat, Sadia and Darjeeling have been linked up by wireless with New Delhi, India's capital. It is also proposed to instal high-powered multi-channel telegraph and telephone stations at Bombay, Calcutta, Delhi and Madras. New wireless stations have been set up at ten other places.

A high-speed communication system between Madras and Rangoon has already been agreed upon and the intro-

duction of a similar link between Bombay and Bangalore and between Calcutta and Gauhati is under consideration.

It is also proposed to establish a network of monitoring stations at various places all over the country. Monitoring is at present done at Bombay, Calcutta, Delhi, Jubbalpore and Bangalore.

EXTERNAL COMMUNICATION

The overseas communication service was nationalized shortly before independence; its headquarters is at Bombay. A direct wireless telegraph service connects Bombay with London, Melbourne, Shanghai, Tokyo, New York, Kabul, Djakarta and Bangkok. A regular service also connects New Delhi with London and Moscow. A photo-telegraphic service operates on the Bombay-London and Bombay-New York routes and submarine cable facilities are available for ships bound to and from Europe, the Far East and Africa. Moreover, India has direct radio telephone services with London, Cairo, Djakarta, Tehran and Tokyo. The Five Year Plan has set apart a sum of Rs. 10 million to be spent on the development of India's external communication service. This envisages a wireless tele-communication station at Calcutta and the extension of the existing stations at Delhi, Bombay and Madras.

TELEPHONE FACTORY¹

In July 1948, a telephone factory was established at Bangalore to manufacture automatic telephones and carrier equipment. A major part of the company's capital is held by the Government of India and the Mysore Government. The Automatic Telephone and Electric Company Limited, who are also partners in the enterprise, hold less than 5 per cent of the shares. The factory employs 1,600 people and produces 25,000 instruments per year. It manufactures automatic exchanges and other ancillary equipment, and fabricates its own tools.

¹See State Enterprise, ch. 11.

It is hoped that this factory will make the country self-sufficient in its supply of telephones and related equipment in the near future.

CIVIL AVIATION

As a meeting point of the air routes between the East and the West, India holds a key position in international aviation. With its vast distances and favourable climate throughout the year, India provides an ideal field for air transport. International air services to and across India are operated by thirteen foreign companies, including the T.W.A., Pan-American Airways, B.O.A.C., K.L.M., Air France, and Air India International. To-day, nine Indian air transport companies operate scheduled air services on 50 routes within and beyond the frontiers of India, covering a route mileage of over 25,000 miles. In recent years, both passenger and freight traffic by air have increased considerably. During 1947, the Indian airlines carried 254,960 passengers and transported 5,647,562 lb. of freight. The corresponding figures for 1950 were 452,869 passengers and 80,006,755 lb. Night air services operate between the principal cities of India, and as it is cheaper to travel by night, nearly a hundred passengers avail themselves of these services every night. On an average, they carry about 2,700 lb. of freight and 6,800 lb. of mail on each trip.

Before 1947, Burma and Ceylon were the only two countries covered by the airlines operating from India. But, to-day, the Indian air companies offer regular passenger and freight services to Cairo, Rome, Paris, Geneva, London, Aden, Nairobi, Bangkok as also to Singapore, Ceylon, Burma, Nepal, Pakistan and Kabul.

The Government encourages the Indian airlines and flying clubs by giving them loans and grants. The number of aerodromes in the country have now increased to 75 from 48 in 1949-50. As with the railways, the creation of East Pakistan necessitated fresh arrangements to connect Assam with the rest of India. A number of air-strips were

constructed at Tripura and several others are being built in Assam. The Government is also fostering research on the problems of aviation.

India has ten subsidized flying clubs. The Civil Aviation Training Centre at Allahabad has earned the reputation of being the foremost in the East. It trains pilots, aerodrome officers, aeronautical engineers and other ground staff.

The Government of India grants subsidies to the Indian Gliding Association at Bombay to encourage gliding. The gliders designed by the Civil Aviation Department are being built by the Training Centre at Allahabad. The Hindustan Aircraft Factory at Bangalore is the nucleus of a modern aircraft industry.

RIVER VALLEY PROJECTS

RIVERS have played a vital role in India's civilization and the pre-historic civilization of the Indus valley was essentially a riparian culture. The kingdoms that grew up in the hinterland of the Indus and the Ganges have bequeathed a rich legacy to posterity. A large number of tanks and canals built centuries ago are to be found in various parts of the country, and some of them are still in excellent repair.

On an average, India receives a rainfall of 50 inches every year, but there is naturally a large disparity in the depth of rainfall between the various regions. Beginning from a meagre five inches in the deserts of the north-west, it increases gradually across the plains to about 100 inches in Assam. Apart from its unequal distribution, rainfall varies from year to year. The fickle monsoon makes cultivation hazardous in certain parts of the country.

The country's water resources have not so far been systematically surveyed. Based on an empirical formula correlating the river-flow in each basin with its rainfall and temperature, it has been estimated that the annual flow of the rivers in India is approximately 1,356 million acre-feet. Of these, only about 76 million acre-feet, constituting 5.6 per cent of the total resources, are at present being used for irrigation, and the rest goes waste into the sea. Except for a few storage works in South India, most of the existing schemes for irrigation are in the

nature of diversion channels. India's irrigated area of 49 million acres comprises only 18 per cent of the total area under cultivation. In relation to the potential water-power resources of the country, the present rate of exploitation is very low. Out of 1.7 million kilowatts generated in the country, hydro-power accounts for only 0.55 million kilowatts, the rest being thermal.

Moreover, electric power has so far been available only to urban areas. The new schemes for the generation of hydro-electric power will serve the villages as well. Electricity generated by harnessing the energy of wild rivers must relieve the drudgery of uneconomic manual labour in the villages. In a few years, the amenities of modern life will be at the service of rural India.

A number of irrigation and power projects are now well under way, and several others are under investigation. Some of these are irrigation schemes, while others are multi-purpose projects. The latter will control floods, bring fresh land under irrigation and produce hydro-electric power. If the course of a river is dammed and controlled, goods can be transported inexpensively through inland waterways. Fish culture, soil conservation and afforestation are other benefits that would accrue to society from such projects. In the list of priorities for public expenditure suggested in the Five Year Plan, river valley projects occupy pride of place. The schemes which are already under construction have been incorporated into the Draft Plan. Out of an estimated expenditure of nearly Rs. 14,930 million envisaged in the Plan, river valley schemes alone account for nearly Rs. 4,500 million—a third of the total expenditure.

The entire cost of all these projects has been estimated at Rs. 10,100 million. The projects already under construction, are, when completed, expected to cost Rs. 7,640 million. By the end of March 1951, Rs. 1,480 million had been spent on them. During the five years covered by the Plan, it is proposed to spend Rs. 5,000 million on these schemes, and it has been estimated that Rs. 1,160 million

will have to be spent later. The projects now under construction are designed to irrigate an additional area of 8.4 million acres and generate 1.05 million kilowatts of additional power by 1956. When in full commission, they will add 16.4 million acres to the irrigated area and generate an additional 1.8 million kilowatts of power.

The following table gives the expenditure on these schemes during each year of the five-year period, the progressive increase in the irrigated area and the extra power generated. The table refers to schemes incorporated into the Five Year Plan.

Year	Expenditure in millions of rupees	Additional irrigated area in acres	Additional power in kilowatts
1951-52	920	948,000	42,000
1952-53	1,260	2,053,000	228,000
1953-54	1,220	3,490,000	711,000
1954-55	1,100	5,715,000	913,000
1955-56	1,000	8,350,000	1,052,000

N.B.—A. Figures in column 2 and 3 represent an increase over figures for 1950-51.

B. Figures are provisional, yet to be approved by the Planning Commission.

There are many other schemes, which are either ready for execution, or on which investigations are nearing completion. These schemes are most important from regional considerations, and it would be necessary to commence work on some of them during the latter part of the five-year period.

The following important river valley schemes are now under execution :¹

The Bhakra-Nangal in the Punjab, PEPSU and Rajasthan

The Damodar Valley Scheme in Bihar and West Bengal

¹For irrigation by tanks, wells, etc., termed "Minor Irrigation Works," see ch. 10.

The Hirakud in Orissa
The Tungabhadra in Madras and Hyderabad
The Kakrapara in Bombay
The Lower Bhawani in Madras
The Mayurakshi in West Bengal.

The Bhakra-Nangal in north-west India is a joint enterprise in which the Punjab, PERSU and Rajasthan are partners. This scheme envisages a dam 680 feet high to store the flood waters of the river Sutlej and divert them into a canal. The Nangal Barrage is being constructed eight miles down stream. Falls at three places below the canal will generate hydro-electric power. The main Bhakra canal will take off from the end of the Nangal Canal, and its discharge of 12,500 cusecs would, it is estimated, irrigate 3.6 million acres. It will also generate 400,000 kilowatts of hydro-electric power. The total cost of the scheme was recently estimated at Rs. 1,560 million.

The Damodar Valley Project envisages the construction of eight storage works with hydro-electric stations, an irrigation barrage with canals, a big thermal station and a power transmission grid to serve the industrial areas of Bihar and West Bengal. During the first phase of the plan, which is now under execution, a thermal station capable of generating 150,000 kilowatts of power at Bokaro, dams at Tilaiya, Konar, Maithon and Panchet Hill and a barrage and irrigation system at Durgapur are being built. The cost of the scheme has been estimated at Rs. 900 million. It will irrigate an area of nearly 1.3 million acres and generate 275,000 kilowatts of power.

The Hirakud Project comprises a dam across the Mahanadi River about nine miles up stream of Sambhalpur in Orissa State. The dam, which is to be composite in nature, will be three miles long, and have a maximum height of 150 feet. Canals will branch off from the reservoir on either bank. Also, the existing Mahanadi delta system will be remodelled. On completion, the scheme is expected to irrigate an area of 1.9 million acres and

generate 127,000 kilowatts of power. The total cost of the scheme has been estimated at Rs. 890 million.

The table below gives details of some of the other river valley schemes now under execution :

State	Project	Estimated cost in millions of rupees	Benefits	
			Irrigation in thousands of acres	Power in thousands of kilowatts
Bombay	Gangapur Storage Project	33.4	38	..
	Ghataprabha Canal Project—Left Bank	54.5	120	..
	Mahi Canal Project—Right Bank	42.5	105	..
	Kakrapar Project	62.6	600	..
Madras & Hyderabad	Tungabhadra-Project	412.4	700	..
Madras	Lower Bhawani	90.7	207	..
	Malampuzha Reservoir	38.0	40	..
	Manimuthar Project	39.8	20	..
	Moyar Hydro-electric Scheme	46.4	..	36
	Pykara—III Stage Extensions	48.9	..	28
	Papanasam—II Stage Extensions	33.6	..	17
	Machkund Hydel Scheme	68.2	..	103
	Tungabhadra Hydel Scheme	79.4	..	60
	Sarada Power House	75.0	..	23
	Mayurakshi Reservoir	155.0	600	4
	Rajolibunda	43.0	79	..
	Godavari—I Phase	44.1	53	..
	Lakkavalli	200.0	180	14
Mysore	Tunga Anicut	20.0	21	..
	Nugu Reservoir	22.0	20	..
Rajasthan	Jawai Project	23.9	46	..
	Peechi	17.3	48	..
Travancore-Cochin	Chalakudi	12.6	50	..
	Neyyar Scheme	12.0	31	..
	Pallivasal—II Stage	23.0	..	9
	Sengulam	27.5	..	48
	Hydel	..	..	..
	Poringalkuthu	26.0	..	24

CHAPTER XX

SCIENTIFIC RESEARCH

BEFORE World War II, very little was done by the State to harness science for the benefit of industry. The exigencies of war brought home the need for a central research organization, and in 1940, the Government of India set up the Board of Scientific and Industrial Research. During the war years, attention was, however, devoted to the immediate objective of the effective prosecution of the war. The present Council of Scientific and Industrial Research, which was established in April, 1942 as an autonomous body, drew from the experiences gained by the Board in the co-ordination of scientific research and industrial needs.

In 1947, scientific and industrial research was assigned its proper place in the scheme of national affairs, and the Department of Scientific Research was created on June 1, 1948. When in February 1951, certain ministries were re-organized to ensure efficiency in administration and economy in expenditure, this Department became the nucleus of a separate Ministry. Since the new Ministry of National Resources and Scientific Research dealt with two closely related subjects, it was thought that their unification would not only ensure efficiency, but extend the scope and benefits of scientific research.

The construction of the National Laboratories, which started in 1948, was completed in 1950 despite acute shortages in building material. The following laboratories are already functioning.

1. The National Chemical Laboratory, Poona.
2. The National Physical Laboratory of India, New Delhi.
3. The Fuel Research Institute, Dhanbad.
4. The Central Glass and Ceramic Research Institute, Jadavpur.
5. The Central Food Technological Research Institute, Mysore.
6. The National Metallurgical Laboratory, Jamshedpur.
7. The Central Drug Research Institute, Lucknow.
8. The Central Road Research Institute, Delhi.

The foundation-stone of the Central Building Research Institute at Roorkee was laid in 1951. The Central Leather Research Institute at Guindy in Madras and the Central Electro-chemical Research Institute at Karaikudi are under construction and are expected to start functioning shortly.

These laboratories undertake both fundamental and applied research, and the emphasis is laid on problems of immediate relevance to the industrial development of the country. A schedule of work has been drawn up with particular reference to the co-ordination of the activities of the various laboratories. The co-operation of the Universities, scientific institutions and industrial associations is also being sought. These laboratories will attempt to develop local sources of supply of vital materials and resources. Based on the work sponsored by it during the last twelve years, the Council has applied for 205 patents.

The Government of India has set up an Atomic Energy Commission, and it has been entrusted with the task of estimating the country's potential resources for the generation of atomic energy and drawing up plans for their exploitation. A factory for the extraction of thorium and the rare earths from monazite sand will shortly go into production. It is expected to process 1,500 tons of monazite sand every year.

The Atomic Energy Commission awards substantial grants to research and educational institutions throughout

the country, and helps them to improve the standard of instruction in mathematics, physics and chemistry; they are also encouraged to undertake fundamental research. Research on atomic energy is now being carried on at the Tata Institute of Fundamental Research at Bombay, the Bose Research Institute in Calcutta, the Physics Department of the University of Delhi, the Indian Institute of Science at Bangalore, the Department of Physics of Andhra University, the Physical Research Laboratory at Ahmedabad and at Aligarh University. Important results have been obtained, particularly in the study of cosmic rays.

At present, industrial research in India is sponsored mostly by the Government. Owing to their relatively small size, few industrial concerns can afford to have independent research institutions. Even if they were able to do so, it would be a waste of effort and money for each concern to have its own laboratory. The modern tendency in research is towards centralization. In the United Kingdom, for instance, there are associations whose members benefit equally from their research. In India also, strenuous efforts are being made to foster the growth of co-operative research. The Ahmedabad Textile Research Association founded in 1948, the Silk and Art Silk Association set up in 1950 and the South India Textile Mills Research Association formed in 1952 are examples. The Tata Institute of Fundamental Research at Bombay, the Institute of Nuclear Physics and the Bose Research Institute in Calcutta and a few Universities specialize in fundamental research. Most of these institutions receive substantial grants from the Government. Meanwhile, a number of scientific societies have sprung up in India, and they play an important part in the dissemination of scientific knowledge through papers and journals. They are also encouraged and aided by the Government. On the recommendations of the Scientific Man-power Committee, the Government has instituted a number of research scholarships. The Government has also exempted certain scientific equipment and apparatus from customs duty.

CHAPTER XXI

REHABILITATION

THE political, human and social problems that confronted India on her attaining freedom, would have taxed the resources and patience of the best administration in the world. The most difficult among them was the rehabilitation of 7.48 million non-Muslims uprooted from West and East Pakistan. This figure exceeds the entire population of Australia which is twice as large as the Indian Union.

When the mass exodus from Pakistan began in 1947, the new administration had not yet had time to recover from the serious depletion of its personnel. The Government's first concern was to provide facilities for evacuation. People travelled to places of safety by plane, by rail, military lorries and motor cars. Thousands travelled on foot or by bullock cart in caravans. Once on Indian soil, they had to be given shelter, food and clothes. Nearly five years have since gone by; it can now be said that time has healed the memory of the past and its sufferings and that the displaced persons have settled down to a new life.

SETTLEMENT ON LAND

Significant progress has been made in the resettlement of displaced persons on the land. In the Punjab and the PEPSU, for instance, the land left behind by evacuees has been distributed on a quasi-permanent basis among 404,000 displaced land-owners from the West Punjab and those

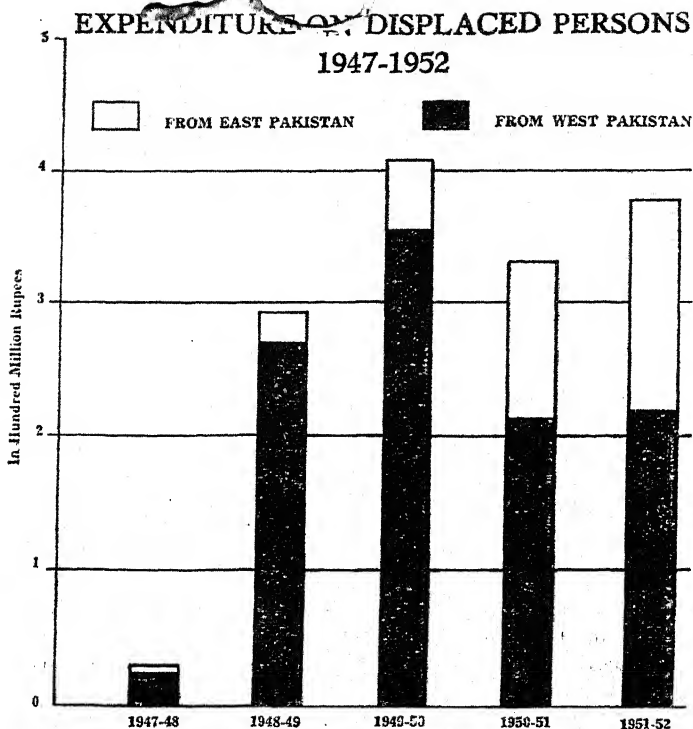
of Punjabi origin from Sindh, W.F.P., Baluchistan and Bahawalpur. Moreover, about 33,000 families of displaced tenants have been settled in the Punjab and the PEPSU as tenants-at-will. In the other States also, 57,500 displaced non-Punjabi peasant families have been allotted land.

Over 337,000 displaced families from East Pakistan have so far been settled in the rural areas of the eastern States. The new settlers are being given loans according to prescribed scales for the purchase of agricultural equipment and the construction of hutments, etc.

So far Rs. 162.2 million have been advanced in loans to rural settlers—Rs. 77.7 million for displaced persons from West Pakistan and Rs. 84.5 million for those from East Pakistan.

URBAN SETTLEMENT

The problem of urban resettlement has proved to be more complex, because the people, who left the cities and those who came to them subsequently, belonged to two different economic classes. While the Muslim migrant was generally a labourer or an artisan, the incoming non-Muslim was a businessman, a shopkeeper or a white collar worker, often used to a much better standard of living. Also, during and after the war, there has been a steady, if not considerable, migration of rural population to the cities and the resultant strain has been severe on the urban economy. In most cases, there was no further scope for an increase in urban population. Naturally, housing thus occupied an important place in the scheme of urban rehabilitation. In the initial stages, the displaced persons were sent wherever accommodation could be found. Often the Government had to commandeer barracks, *dharamshalas*, and tents to serve as improvised shelters. The need for a more enduring solution, however, moved the Government to embark upon an extensive building programme. In a little over four years, ten townships were thus planned and built. Apart from these, about 150 suburban extensions were also undertaken in the various States.



To Delhi alone, half a million displaced persons had come. Of these about 190,000 were accommodated in evacuee houses. For the rest, the Government drew up a programme of about 20 suburban extensions, extending over an area exceeding 3,000 acres and fully equipped with civic amenities. By the end of March 1952, over 27,000 new tenements and shops had been built and about 5,500 were in different stages of construction. About 1,600 plots were allotted to displaced persons to enable them to build their own houses. Many of these schemes have already

been executed, and when they are ^{fully} completed the present scarcity of urban accommodation is bound to relent.

The housing policy of the Government in regard to displaced persons from East Pakistan has been modified; they are now provided with building sites and granted house-building loans, the actual construction being left to the displaced persons themselves. Two more townships have, however, been built by the Government at Habra-Baigachi and Fulia with 1,100 and 850 houses respectively. The State Governments in the eastern region have also constructed over 7,200 houses.

EMPLOYMENT¹

The Employment Exchanges have rendered valuable service in securing jobs for displaced persons. By April 30, 1952, 190,800 displaced persons had been provided with suitable employment. Another 80,000 were absorbed in the services of the Central and State Governments, some of them through Employment Exchanges.

TRAINING

The majority of the displaced persons from Pakistan were small traders and shopkeepers. As the scope for employment in the distributive trades is limited, a large number had to be diverted into productive channels. Before they were absorbed in industry, they had to be trained under schemes initiated by the Government.

The Rehabilitation Ministers' Conference, held in December 1950, had recommended that 80,000 displaced persons from West Pakistan should be trained; the programme has been largely fulfilled. By April 30, 1952, more than 52,000 of these had been trained and over 9,000 were in training. The corresponding figures for displaced persons from East Pakistan were 8,000 and 4,000.

¹ See Employment and Training, ch. 15

EDUCATION

Various measures have been adopted to help displaced students of all ages to continue their studies. These measures include the grant of stipends, scholarships, etc. In certain cases, deserving students are exempt from the payment of tuition fees. Provisions relating to domicile, which often imposed disabilities on displaced students entering technical institutions, have now been removed. New schools and colleges have been opened throughout the country and existing educational institutions expanded.

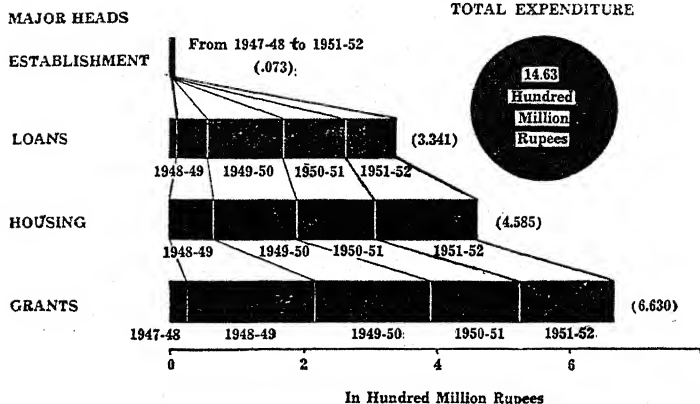
REHABILITATION IN BUSINESS

Also, 27,000 evacuee shops and 2,000 evacuee industrial establishments were allotted to displaced persons. In addition, 28,000 new shops and several markets have been built in various towns. The Government has set up industries in selected areas in the Punjab, Delhi, and the new townships of Faridabad, Ulhasnagar, Sardarnagar, Gandhidham, Rajpura, Modinagar, Hastinapur, Habra-Baigachi, etc. The Government also helps businessmen and industrialists to secure raw materials, export and import permits, railway priorities, etc.

By April 30, 1952, a loan of Rs. 110.4 million had been sanctioned to more than 171,000 displaced persons from West Pakistan. Of these, Rs. 105.2 million had actually been paid to 167,000 displaced persons in the eastern region. It was recently decided to suspend the recovery of loans given to displaced persons from West Pakistan. The small loans scheme has also been modified. They will henceforth be given to displaced persons who wish to set up on their own after training, or to settlers in the new townships. The Rehabilitation Finance Administration had sanctioned loans worth Rs. 82.6 million to 9,669 persons by April 30, 1952; the total number of persons benefiting from these loans is 96,700.

In order to evolve a scheme of compensation for displaced persons for property left behind by them in West Pakistan, claims, except on agricultural land, are being

EXPENDITURE ON DISPLACED PERSONS



received and verified. The number of claims registered so far totals 535,000, comprising 1.03 million property sheets. Of these, 388,000 claims involving 782,000 property sheets had been verified by June, 1952.

Simultaneously, immovable evacuee property in India is being evaluated. The evaluation of agricultural lands and industrial establishments has also started. A Committee under the chairmanship of Dr. Bakshi Tek Chand has been appointed to advise the Government on the utilization of Muslim evacuee property in this country.

A separate Board looks after the interests of displaced Harijans. During the last four years, the Board has found employment for about 8,800 displaced Harijans and secured 1,123 houses and tenements for them in urban areas. In the villages, the Board has helped 16,259 families in securing allotments of land and loans; 2,403 huts have also been provided in rural areas.

A sum of Rs. 1,463 million has so far been spent on

the rehabilitation of displaced persons. The details of expenditure are as follows :

Establishments	..	..	Rs. 7.3 million
Grants	..	..	Rs. 664.6 million
Loans (other than housing)	..	..	Rs. 322.7 million
Housing	..	..	Rs. 468.8 million

CHAPTER XXII

FOREIGN TRADE

ALTHOUGH, throughout the British period, India had a favourable balance in her trade with the rest of the world, she continued to export gold. Her "export surplus" was mostly expended on the payment of dividends on British capital and the salaries and pensions of British officers in India.

Arranged in the order of their importance, the articles imported into India between 1938-41 were : raw cotton and textiles, mineral oils, grain, pulses and flour, machinery and millwork, art silk, chemicals used in dyeing and tanning, and pasteboard, wood and timber, provisions, spices, drugs and medicines, hardware, liquors and raw and manufactured silk. During 1940-41, cotton and textiles alone accounted for a quarter of the country's import trade.

The exports during this period were jute manufactures, tea, raw cotton, cotton manufactures, seeds, raw jute, leather, grain, pulses and flour, hides and skins, tobacco, fruits and vegetables, wool and its manufactures and lac. Jute manufactures alone constituted a quarter of India's exports at that time. Until the thirties, the structure of India's foreign trade followed the traditional pattern that usually obtains between two countries in different stages of economic development. India was essentially a primary producer and exported raw materials and semi-processed goods. Similarly, her imports were characteristically those of an agrarian economy.

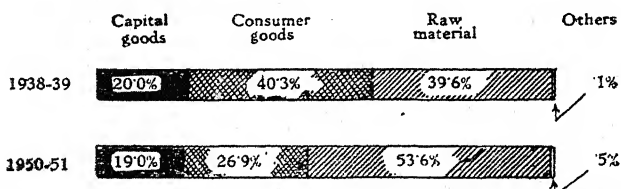
It was in the third decade of this century that a realignment in the structure of India's foreign trade became noticeable. As evidenced by the following table, her imports of finished goods began to decline simultaneously

(in millions of rupees)

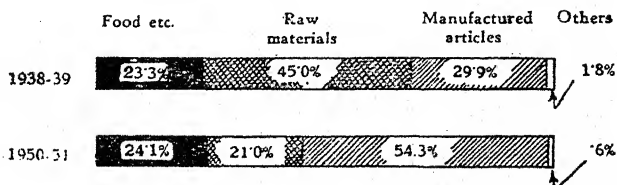
	1920-21	1930-31	1938-39
Food, drinks and tobacco	360	290	240
Manufactured articles	2,740	1,090	930
Raw materials	180	230	330

COMPOSITION OF TRADE

(i) INDIA'S IMPORTS



(ii) INDIA'S EXPORTS



with an increase in the imports of industrial raw materials.

Of the manufactured articles, the fall in the imports of textiles was the most remarkable. They declined from Rs. 1,020 million in 1920-21 to Rs. 140 million in 1938-39. While in 1921-22, the country imported Rs. 280 million worth of sugar, the indigenous production was able to meet the domestic demand in full by 1935-36. The imports of food-grains had increased to Rs. 320 million by 1939-40. This phenomenal rise was mostly due to the separation of Burma from India. Basically, however, the deficit in food production was to be ascribed to the fact that the fertility of India's soil did not increase at the same rate as her population.

No such secular tendencies can be detected in the export trade of this period. An agrarian economy, which pays for its imports of manufactured articles with raw materials, is usually hardest hit by a depression. For, when prices fall in the world markets, they fall more steeply in an agrarian economy. Also, the incomes of primary producers are conditioned by industry's demand for their products. Originating in an industrial economy, a depression is intensified in the process of its communication to an undiversified agrarian economy. During the inter-war depression, India's exports thus dwindled rapidly, but thanks mostly to the substantial exports of gold on private account, she continued to have a favourable balance in her external trade.

World War II proved to be of decisive advantage to Indian industries. Japan and Germany had become enemy countries. Europe's productive potential was badly depleted and the shortage of merchant shipping contributed in a great measure to the decline in India's imports. Her exports on the other hand found ready and expanding markets in Asia, the Middle and the Far East. The decline in imports coupled

with an increase in exports served to swell the country's substantial export surplus. Partly on account of unrequited exports to the U.K. and partly as a result of the heavy expenditure incurred by the Allies in this country, the favourable balance in India's external trade increased rapidly.

This favourable balance did not, however, flow from any inherent strength in India's economy. It merely served as a measure of the austerity imposed on civilian consumption. Acute shortages in vital commodities, bottlenecks in transport and accelerated depreciation in the value of machinery were the price that India had to pay for an export surplus.

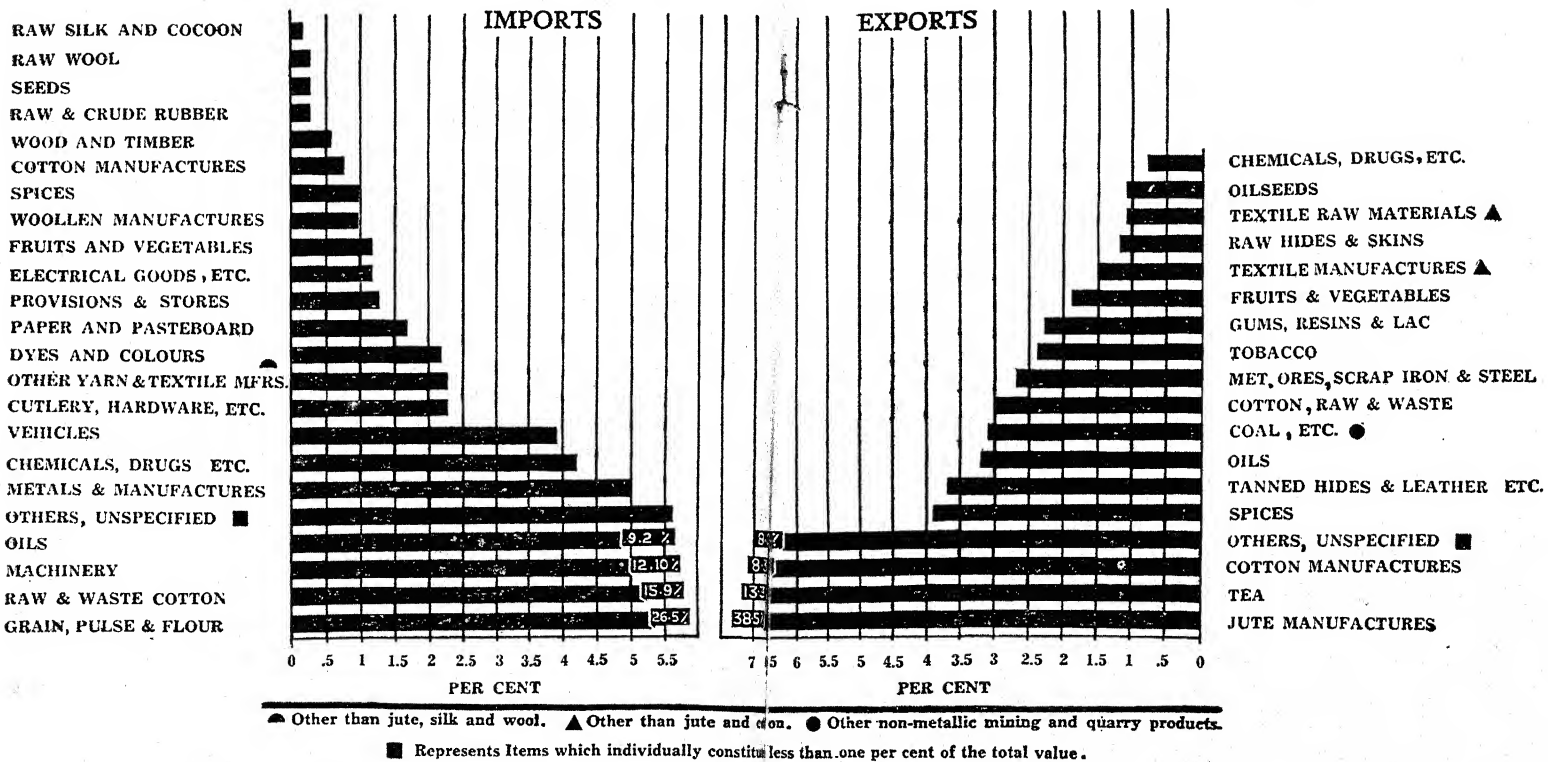
Whenever a favourable balance in a country's external trade is not secured through an increase in productivity, the supply of goods and services is correspondingly diminished. The general price-level therefore tends to rise, but under a system of controls, demand is perforce inelastic. The consumption of goods and services is therefore merely deferred. When imports are again liberalized, the pent-up demand finds a vent in brisk trade. Because of their short-term and cyclical character, these violent shifts in prices and demand do not normally cause any significant changes in the level of production. If they persist, however, the production of goods increases in response, calling a halt to rising prices.

It is in the sphere of the country's foreign trade that the high price-level has far-reaching repercussions. It leads to a relative decline in the demand for its exports and, in the absence of restrictions, to a surfeit of imports as well. An unfavourable balance of trade is thus both the outcome of and the corrective to a "false" export surplus.

POST-FREEDOM PHASE

The large deficit in India's balance of trade during 1948-49 was not wholly due to high prices. There were

COMPOSITION OF INDIA'S FOREIGN TRADE, 1951-52



other factors, too, which hastened the crisis. Among these, partition was the most important. By destroying the flourishing inter-regional trade of undivided India, it necessitated painful economic readjustments. It reduced India's export industries to hopeless dependence on imported raw materials. Commodities, such as cotton, wool and hides and skins not only disappeared from the list of her exports, but figured prominently among her imports. The resultant loss to this country was actually twice the value of the raw materials lost to Pakistan. Thus, while the exports of raw jute amounted to 306,246 tons in 1946-47, they had declined to 212,760 tons by 1948-49. Similarly, the exports of raw cotton were reduced from 907,928 bales to 420,051 bales. Further, the exports of raw buff hides amounted only to 85 tons in 1948-49 as against 2,344 tons in 1946-47. Also, Pakistan demanded exorbitant prices for these raw materials, so vital to India's economy, thus bringing the trade between the two countries to a virtual standstill for sometime. By aggravating the deficit in India's food supply, partition also imposed a severe strain on the country's foreign exchange. Thus, while India imported foodgrains worth Rs. 938 million in 1947, she had to spend Rs. 1,300 million in 1948 and Rs. 1,480 million in 1949. To add to this, the bulk of the foodgrains had to come from hard currency areas.

EXPORTS

Besides the dearth of raw materials, there were also other reasons which contributed to a fall in the country's exports. Mostly owing to increased costs of production, the Indian manufacturers were inclined to charge high prices which acted as a deterrent to exports. Jute manufacturers are a case in point. Thanks to their high prices in the U.S.A., they were being fast replaced by substitutes. Also, India all but lost her foreign markets for castor-seed and oil at one time because of the resistance of foreign consumers to high prices.

The lack of adequate facilities for transport was another factor which adversely affected the volume of exports. In the case of ores, for instance, the proportion of their cost imputable to transport is very high. In particular, the exports of hides and skins, bones, lac, oils and oilseeds, cotton, wool and tea suffered most for want of wagons.

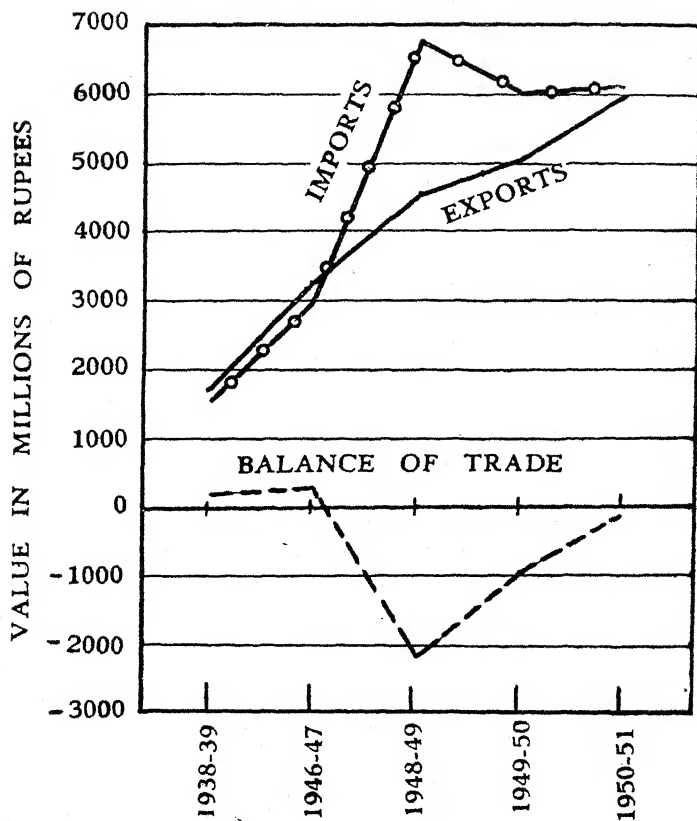
Before partition, entrepot trading was an important feature of India's external trade, and she owed it to her strategic geographical situation. She exported goods manufactured in Europe and America to the neighbouring Asian countries who, in their turn, sold their goods to the western countries through India. The middleman's profit constituted an accretion to India's favourable balance. Partition thus deprived India of a sizable share of her re-export trade, particularly in respect of goods which came across her land frontiers in the north-west.

Consequently, the adverse balance of trade in merchandise rose to Rs. 2,192.6 million in 1948-49. Several remedial measures were taken by the Government. Imports were restricted to the minimum of the country's needs and exports encouraged. Foodgrains and industrial raw materials, however, continued to be imported as before, but the imports of certain consumer goods were reduced through quantitative restrictions and import duties. The goods meant for export received high priority in transport, and several commodities were placed on the open general licence.

BILATERAL TRADE

Bilateral trade agreements were concluded, among others, with Switzerland, Hungary, Poland, Finland, Egypt, Iraq, Afghanistan, Australia, Burma, Czechoslovakia, Western Germany, Austria, Indonesia and Japan. The main objective of these agreements was to reduce the strain on the country's limited supplies of foreign exchange by secur-

INDIA'S FOREIGN TRADE



ing essential goods from non-dollar areas in return for India's staple exports.

These trade agreements have been of two kinds. The

first committed the parties to specified quantities of exports. The other treaties, which were in the nature of general trade arrangements, envisaged the exchange of letters of commercial goodwill.

Thanks to these bilateral agreements, India was able to obtain scarce goods, such as news-print, capital goods, steel products, etc. They have generally served to stimulate India's foreign trade by increasing both exports and essential imports. Largely as a result of these measures, India's adverse balance was reduced to Rs. 1,337.3 million in 1949-50. The devaluation of the rupee in 1949 caused a further decline, and the adverse balance in India's trade stood at Rs. 74.6 million in 1950-51.

The aggregate of India's foreign trade rose from Rs. 11,266.6 million in 1948-49 to 11,457.7 million in 1949-50 and to Rs. 12,102.2 million in 1950-51. It reached the record figure of Rs. 16,978.8 million in 1951-52. Though the adverse balance increased once again to Rs. 2,326.2 in 1951-52 it did not give rise to any problem of payments, thanks to the loan of foodgrains from the U.S.A. to the value of Rs. 1,050 million. Heavier imports of essential goods and the decline in the exports of textiles, which had to be conserved for domestic consumption, were the other causes of the adverse balance.

Owing to the increasing deficit in her trade with the dollar countries and the continued depletion of her gold and dollar reserves, Great Britain devalued the pound in September, 1949. India, too, devalued the rupee to the same extent, partly because the rupee was overvalued in relation to the dollar and other currencies.

DEVALUATION

Whether devaluation will increase a country's earnings of hard currency or not will depend on the elasticity of the demand for its exports. For, when the external price of its goods falls as a consequence of devaluation, the volume of its exports should increase sufficiently in order to offset the

loss resulting from the fall in prices. In other words, both the quantity and the value of its exports must increase concurrently.

With the devaluation of the rupee, India's exports of cotton piece-goods, tea, hides and skins, spices, tobacco registered major increases and in some cases even the prices of the export products increased in response to fresh demand. Between October 1949-November 1950, fourteen months after devaluation, the value of Indian merchandise exported by sea and air amounted to Rs. 6,113 million as against Rs. 4,796.7 during the corresponding period in 1948-49. During the same period, the value of goods exported to the dollar area increased from Rs. 1,147.4 million to Rs. 1,508.3 million, and exports to other hard currency areas by 23 per cent

In its relations with other soft currency countries, devaluation conferred a number of other indirect benefits on India.

- (1) She secured a competitive advantage in the world markets over other countries which had not devalued.
- (2) Because of their relative cheapness, India's exports to other soft currency areas, which had not devalued, also increased.
- (3) Immediately after devaluation, the terms of trade turned against India, but they improved subsequently. In buying manganese, wool, paper, etc., from India, the soft currency countries had to compete with the dollar area. It was the latter's demand that really influenced Indian prices for these products. The prices that soft currency areas had to pay increased in consequence.

Actually, the exports of groundnut and wool had to be controlled to prevent a rise in their price as well as to conserve adequate supplies for internal consumption. Moreover, certain Indian exports, for which substitutes were available

only in the dollar market, fetched higher prices from soft-currency countries.

Between October 1949 and March 1950, exports continued at high levels under the stimulus of devaluation. Between April and June, however, they started declining and the price index for exports registered a steady increase. But the advent of the Korean war in the latter part of 1950 brought about a phenomenal expansion of exports. In so far as an increase in export prices increased India's earnings of foreign exchange, they undoubtedly proved favourable.

It has been observed from experience that it is the increase of prices in the export industries which is transmitted most rapidly to the other sectors of production in the economy, thus causing an increase in wages, costs of production and finally prices. The terms of trade are measured by the ratio of the average price of exports to the average price of imports at any one point of time. On devaluation, imports become dearer and exports cheaper. Ultimately, however, the prices of exports tend to rise due to increased demand. The terms of trade are favourable if the increase in the export prices is more than that in import prices. For an adverse balance in a country's foreign trade is merely an indication of the fact that the nation is consuming at a faster rate than it is producing. In fact, it provides the foreign importer an advantage in regard to price, often at the expense of the local consumer. It cannot therefore be a lasting solution for the problem of adverse balance unless the deficit in internal consumption is made good by increased production.

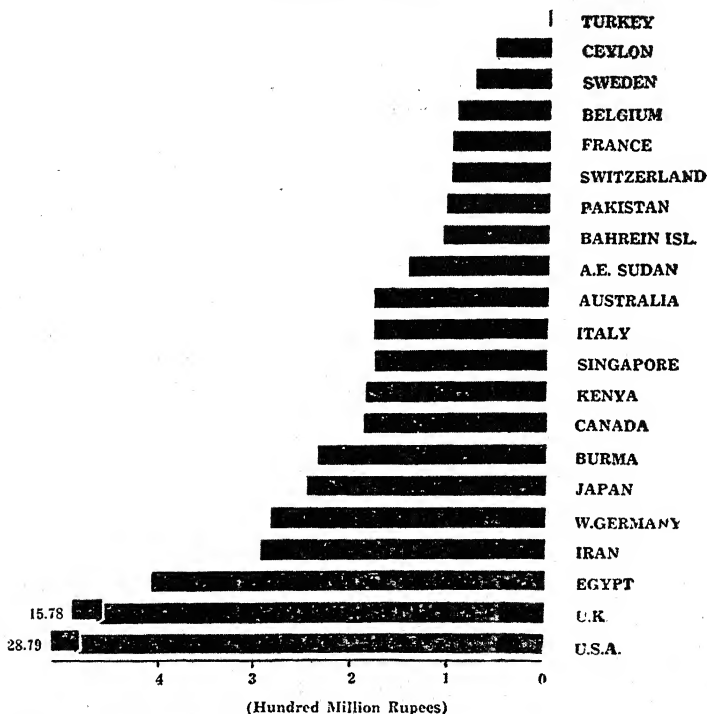
STRUCTURE

It is the structure of India's import and export trade that offers striking evidence of the growth of industries over a period of ten years. In 1938, capital goods accounted for 20 per cent of the total imports and raw materials and consumer goods for 40 per cent each. But in 1950-51, the corresponding figures were 19, 27 and 54 in the same order.

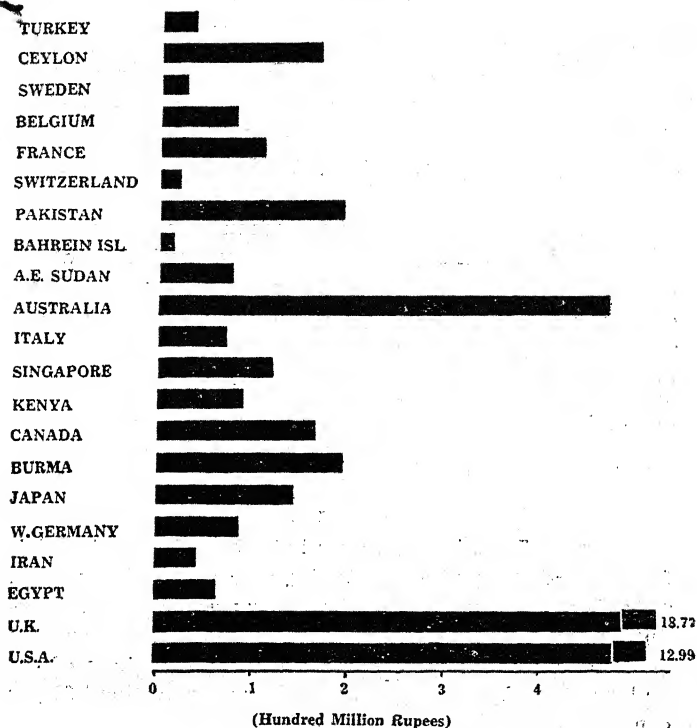
Computed in terms of their absolute value, the share of capital goods had slightly diminished, but their money value actually increased threefold in the interval. They mostly comprised industrial equipment imported to replace machinery, which had become obsolete, or to establish new industries.

In 1950-51, India's exports were made up of food, drink and tobacco (23 per cent), raw materials (45 per cent) and

IMPORTS FROM



EXPORTS TO



manufactured goods (30 per cent). In 1938-39, the percentage shares of the same commodities in the total exports were 24, 21 and 54 respectively. The exports of tea, spices and tobacco had increased while considerable quantities of foodgrains continued to be imported. Raw materials now constitute a much smaller proportion of India's exports, their place having been taken by manufactured articles.

Cotton textiles, which once figured prominently in India's imports, are now exported in bulk. The imports of matches and cement have ceased altogether; paper, woollen goods, artificial silk, rubber products, cutlery, hardware, etc., have steadily declined in volume.

Jute and cotton manufactures, tea, spices, vegetable oils, raw cotton and wool, tobacco, seeds, gums, fruits, mica, and manganese have constituted the bulk of the country's export in recent years.

In 1938-39, jute and cotton manufactures and tea accounted for about 35 per cent of the total value of India's exports; raw cotton and jute, oilseeds, hides and skins, metals and ores and raw wool contributed another 40 per cent. In 1948-49, the figures for the two groups were respectively 56 and 15 per cent. The increased dependence of the country's export trade on a few commodities has thus introduced an element of instability in her foreign trade.

DIRECTION

Before World War II, over half the volume of India's foreign trade was with the sterling area and on an average, only about 10 per cent with the dollar area. In the following decade, India's trade with the sterling area, Germany and Japan declined sharply. As a result, the share of the dollar area in India's foreign trade has risen to about 25 per cent.

The direction of India's import and export trade has undergone equally significant changes. India's needs are no longer met exclusively by imports from the U.K. The U.S.A., Egypt, Iran and Australia have now found an expanding Indian market for their goods. Similarly, India's exports to the U.K. have steadily declined in volume. The U.S.A., Singapore, Australia and Canada import Indian goods in increasing quantities.

DIRECTION OF TRADE

	1938-39		1948-49	
	<i>Exports</i>	<i>Imports</i>	<i>Exports</i>	<i>Imports</i>
Sterling area (excluding Pakistan)	53	58	48	47
Other soft and medium currency countries	18	15	20	25
Dollar area ¹	12	7	28	24
Other hard currency countries ²	17	20	4	4

The U.S.A. is one of India's important customers and her imports of jute goods, paper, mica and manganese have shown a steady upward trend. In return, India buys American foodgrains, raw cotton and metals.

INDO-U.S. TRADE

	1938-39			1948-49	
	(in millions of rupees)				
<i>Exports to the U.S.A.</i>					
Fruits and vegetables	11	45	
Spices	-	13	
Tea	5	38	
Raw hides and skins	15	26	
Jute manufactures	69	339	
Metallic ores	2	41	
Others	41	198	
			<hr/>	<hr/>	
			143	700	

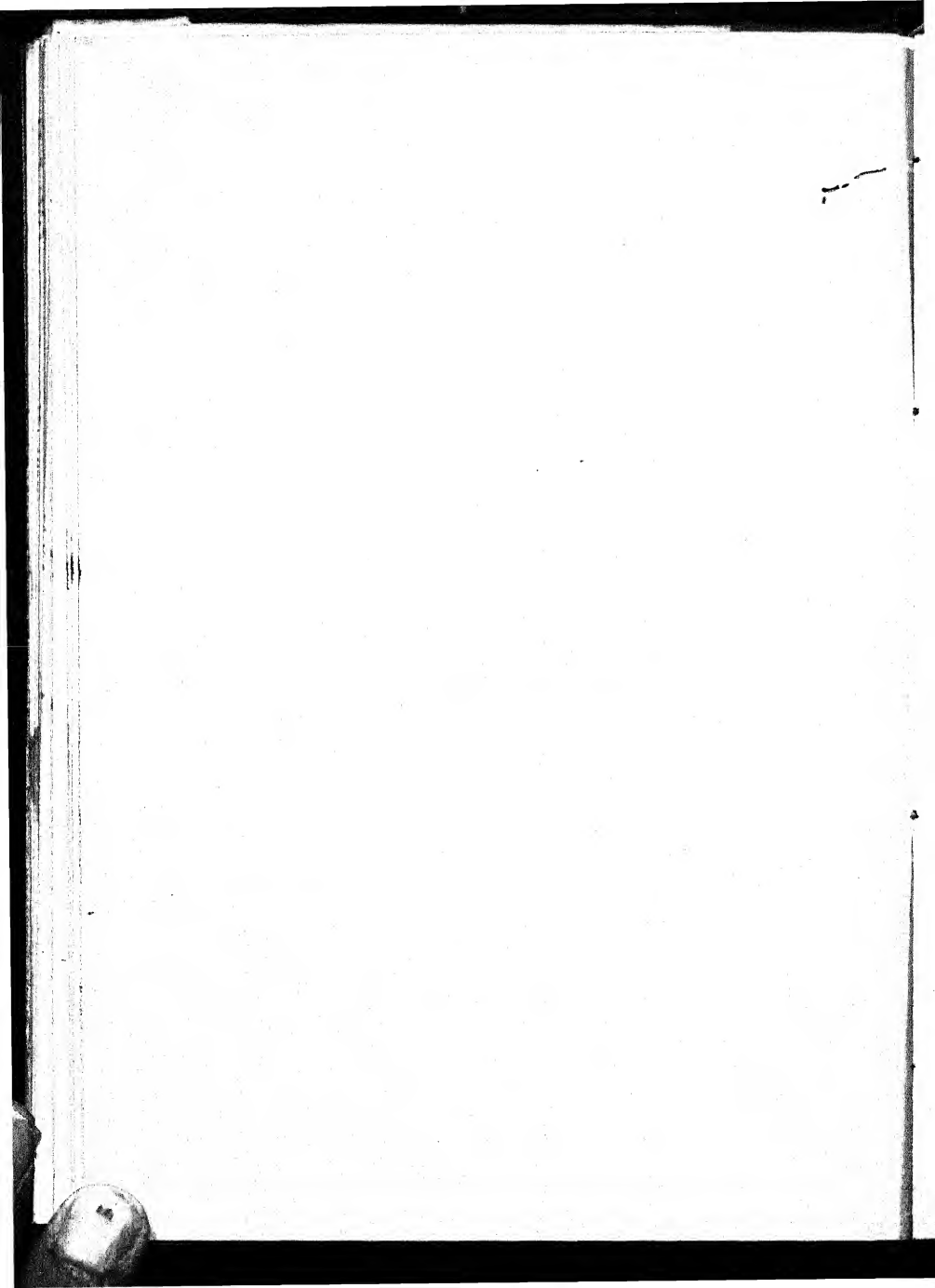
¹In this table the dollar area refers to North, Central and South America and the adjacent islands together with the Philippines, excluding Brazil, Chile, Uruguay, Peru and European possessions.

²Other hard currency countries, as they are defined here, include Belgium and Portugal and their possessions, Germany and Japan.

Imports from the U.S.A.

Grain, pulses and flour	..	..	-	158
Mineral oils	..	..	9	103
Machinery	..	..	21	201
Metals	..	..	5	106
Vehicles	..	..	17	127
Others	..	..	46	447
			<hr/>	<hr/>
			98	1,042
			<hr/>	<hr/>

P A R T
THREE



FESTIVALS

RANGING from austere fasts to exuberant fairs, the festivals of India are as varied and colourful as its people. Hinduism, Islam and Christianity are the three most widely professed religions, and since each has its own particular observances and celebrations, the total number of festivals is very large. Among the Hindus alone, there are about seventy. Only a few, however, are well known and generally observed.

Hindu festivals are of four kinds; the festivals proper, *vratas* (fasts), *jayantis* (birthdays) and *melas* (fairs). As a rule, they commemorate events of moral and spiritual significance in the lives of the gods and goddesses of mythology and legendary heroes and heroines. Also, certain positions and conjunctions of the planets give certain days a sacred character, e.g., the *Puranmashi Vrata* (The Fast of the Full Moon) which comes once a month.

The more important Hindu festivals are, however, Diwali, Vasant Panchami, Rakshabandhan, Dusserah and Holi.

Deepavali or Diwali, the festival of lamps, is one of the most popular. It usually falls in October, the exact date varying from year to year, and celebrates the home-coming of Rama, the hero of the *Ramayana*, after he had defeated the demon-king Ravana. Diwali is an occasion for great rejoicing. A few days before the festival, houses are whitewashed; rubbish is disposed of and furnishings

renovated. On Diwali morning, every household is up and about very early and people put on new clothes. Visits are exchanged between friends and relations, and gifts given and taken. In the evening, rows of earthen lamps are lit on every house-front and roof-top. People go out into the twinkling bazars, shopping for presents. Children buy crackers, squibs and catherine wheels and other fireworks.

In the evening, the family gathers in the best room of the house and performs the Diwali puja, when prayers for success and prosperity are offered to Lakshmi, the Goddess of Wealth.

Bengalis devote this day to the Kali Puja. The South has a different tradition.

RAKSHABANDHAN

Rakshabandhan or Rakhi originated when Sachi, the wife of Indra, tied a sacred thread round her husband's wrist after he had been defeated by the *Asuras* (demons). This amulet gave him added strength and power so that he returned to the fight and triumphed.

On this day, the sister ties coloured threads round her brother's wrist while reciting *mantras*. The sister then presents the brother with sweets; he reciprocates by giving her a present in cash. A *rakhi* is supposed to give the wearer strength to resist and ward off evil influences. In the ceremony of Rakshabandhan, the sister symbolically places her honour in her brother's keeping and he, in his turn, pledges to protect her.

VASANT PANCHAMI

Vasant Panchami marks the first day of spring, the king of the seasons. In spring, the leaf blooms, the bud blossoms, all living things come to fruition. This exuberance in the world around and in the hearts of men is celebrated in a fitting manner. Everyone wears yellow. Men tie yellow turbans and the women don yellow *dupattas* or sarees. Children fly yellow kites flooding the

sky with colour. It was on this day, according to legend, that Siva reduced Kamdeva, the God of Love, to ashes with one glance from his omnipotent third eye.

Bengalis, who worship Saraswati, the Goddess of Learning, on this day, take out an image of the goddess in a procession and immerse it in the river.

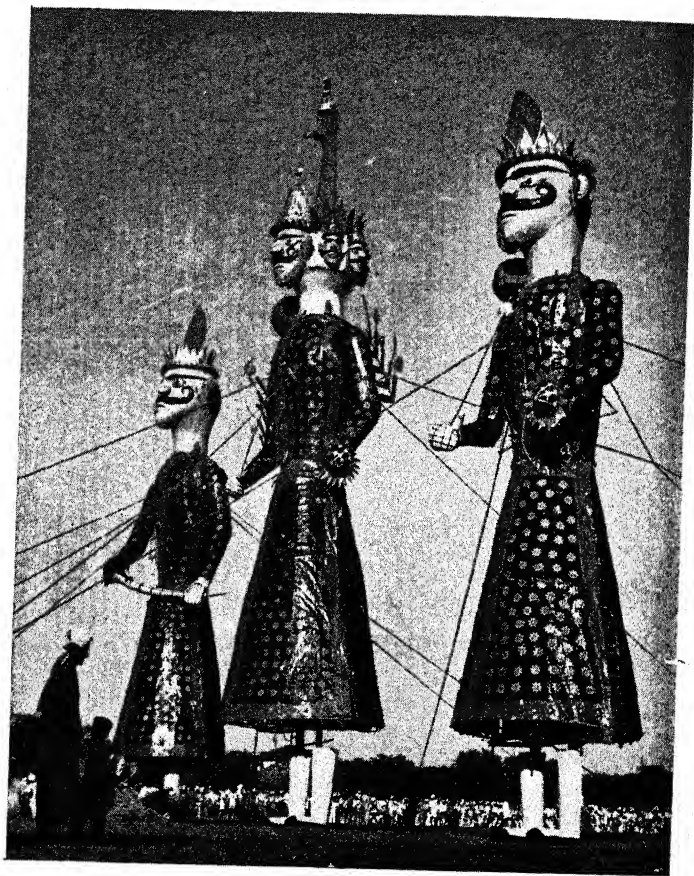
HOLI

Holi, which comes early in March, celebrates the death of the ogress Holika at the hands of Lord Krishna. It is an occasion for boisterous fun marked by the squirting of coloured water. The usual rules of decorum are relaxed and crowds equipped with sprays possess the thoroughfares; neither friend nor stranger is spared a drenching. In the evening, folk-songs are sung at gatherings round huge bonfires.

DUSSERAH

The Dusserah celebrations take a different form in
Dusserah procession in Mysore





Ravana and his minions

different parts of the country. In North India, episodes from the *Ramayana* are staged for a few nights preceding Dusserah. Each quarter of the city erects its own

makeshift stage, while local residents make up the cast. On the evening of Dusserah, a big fair is held and large effigies of the demon-king Ravana and his minions are burnt amidst great jubilation.

Dusserah in South India is a nine-day festival, during which every house is decorated with tiers of little clay dolls representing various divine and lay figures. In the evenings, visits are exchanged and everyone keeps open house. On the ninth day, the *pūja* is offered to the Goddess Saraswati; the worship of tools and implements for different occupations forms part of the ritual.

In Mysore, famed for its Dusserah festivities, the Maharaja holds a nine-day Durbar and on the tenth, rides in state on an elephant with a golden *howdah*.

In Bengal, this festival is called the Durga Puja; it spreads over four days, at the end of which an image of the Goddess Durga, seated on a lion and flanked by the Gods Kartik and Ganesh, sons of God Siva, is taken out in a procession and immersed in the river. This ceremony symbolizes the home-coming of Parvati (Siva's consort) and her subsequent return to her Lord. The Durga Puja is the most popular festival in Bengal.

KUMBH MELA

Besides the fasts and festivals, there are the *melas* or religious fairs. Chief among these is the Maha Kumbh Mela, which is held at Hardwar, Allahabad, Ujjain and Nasik once every twelve years, usually in the months of March and May. Certain days during this *mela* are considered auspicious for bathing in the Ganges. There is an interesting story about its origin. The Gods kept Nectar of Immortality in a vessel and the *Asuras* fought hard against the *Devas* for its possession. During the battle, the *kumbh* fell down on the earth four times—at Allahabad, Hardwar, Ujjain and Nasik. On the twelfth day of the fighting, Lord Vishnu intervened and brought

peace by distributing the contents of the *kumbh* among the deserving.

It is a gigantic *mela*. Everyone who can afford it goes and stays at these holy places during these months. The period is devoted to bathing in the Ganges, fasting, prayer and meditation. A unique feature of this *mela* is the famous procession of the *sanyasis*. On this occasion, they come out of their seclusion and assemble at Hardwar to give the laity the benefit of communion.

MAHAMAHAM

Somewhat similar to the Kumbh Mela of North India is the Mahamaham in the South. This is held in the sacred spot of Kumbakonam. There is a tank here popularly known as the Amritavapi. Legend has it that during the third *Pralaya* (Deluge), the seeds for the next cycle of creation were preserved in the *Amrita Kumbh*. Under the direction of Yogi Kakabhusanda, the pot was closed and sealed with a string. When the deluge swamped the earth, this *Amrita Kumbh* floated upon the waters. As the flood subsided, the *kumbh* touched the earth at Kumbakonam. It fell at an angle and the cord snapped; the lid fell off and the water flowed out to form the pool known as Amritavapi.

Mahamaham is also a bathing fair and numberless pilgrims assemble at Kumbakonam to have the sacred dip.

MUSLIM FESTIVALS

Muslim festivals, though fewer in number, are celebrated with an equal zest and enthusiasm. Id-i-Milad, Id-ul-Fitr, Id-ul-Zuha and Moharram are the more important occasions.

Id-i-Milad is the Prophet's birthday and also the anniversary of his death, while Id-ul-Fitr marks the end of Ramzan, the month of fasting. Id-ul-Zuha commemorates the triumph of Hazrat Ibrahim who sacrificed his son Ismail at the altar in response to the command of God. These three festivals are celebrated in a similar manner.

New clothes are worn, food and sweets are distributed among the poor. Congregational prayers are offered in the mosques and the Muslim divines deliver sermons on the life of the Prophet at public and private gatherings.

Among the Muslim festivals, Moharram is observed only among the Shia Muslims in memory of the martyrdom of Hazrat Imam Hussain; they go into mourning for a period of ten days at the end of which a symbolic funeral procession marches through the city.

The Christian festivals are too well known to need description. In India, they are celebrated with great zeal, since non-Christians, too, whole-heartedly join in the festivities.

SPORTS

INDIA'S lofty mountains, huge plains, wide lakes and rich forests have made it possible for her to make most sports her own. Games form an essential part of everyday life in this country. Every big town has numerous clubs devoted to various forms of sport. While most of the games commonly played are Western in origin, the indigenous sports *kabaddi* and wrestling have survived and are extremely popular, especially in the rural areas. The interests of each particular game are looked after and promoted by various local, State and national associations. A fair standard of play obtains in all fields.

Hockey is a game in which India excels. She has held the Olympic title ever since 1928, when, for the first time, an Indian team competed. Indian players have developed the game to a degree unparalleled anywhere in the world. While quite a few have made their mark at the various Olympic games, Dhyan Chand is universally considered to be its best exponent. In almost every part of the country, first rate hockey is played. There are numerous tournaments the year round, the Beighton Cup, the Aga Khan Cup and the inter-State championship being among the more important.

Not less popular than hockey is football. Although its greatest enthusiasts are to be found in Bengal and South India, the game is played everywhere. The I.F.A. Shield,

the Durand Cup, the Rovers Cup and other tournaments draw crowds comparable only to those in Great Britain.

But of all the Western sports India has adopted, cricket is perhaps the most loved and second only to hockey in the enthusiasm it evokes. India played her first official test in 1932, when an Indian side visited England. Since then tours have been frequently exchanged by English and Indian sides. In 1947, an Indian XI visited Australia, making an entry into international cricket. Subsequently, a West Indies and a Commonwealth XI played test matches in India. While she has so far won only one official test, individual cricketers have achieved great renown. Ranji, Duleepsinhji, Nisar, Amar Singh and Pataudi, to mention a few, are well-known names.

As popular as any other game are tennis and badminton. Badminton is a favourite in most well-to-do homes. Play of a very high order is witnessed on every occasion. Indian badminton players compare favourably with some of the world's best and are probably second only to the Malayan champions. Tennis, though widely played, is still in the formative stage. Although players like Sawhney, Dilip Bose, Sumant Misra, Naresh Kumar and Narendra Nath play first class tennis, these aspirants to Wimbledon have always suffered from the lack of adequate match-practice. The All India Lawn Tennis Association is, however, making efforts to provide efficient coaching for young talent.

Kabaddi, the indigenous sport, is a game of endurance in which two teams take part. A dividing line is drawn across the playing field and a player crosses it repeating *Kabaddi* the while. If he can touch one of the rival team in the same breath, and return to his home-base without being held back till his breath gives out, his opponent goes out of the game.

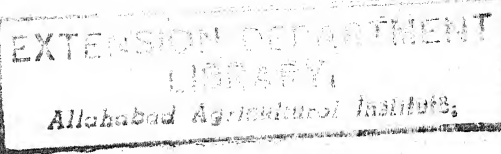
Other Indian sports include polo, golf, angling, yachting, *shikar* and winter sports. Polo, though the exclusive preserve of the rich, has ardent enthusiasts in India, and Indian teams comprise some of the finest in the world. Golf has its votaries in every big city, and Indian golf-

courses are as good as any elsewhere. For the angler, India offers a variety of sport. *Mahseer*, or the Indian salmon is found in most of the large rivers, and the hill streams contain trout. For those fond of deep-sea fishing, the Travancore and the Malabar coasts offer rich experience. As for *shikar*, a variety of game, both big and small, abounds. Winter sports are still not fully developed though most hill stations offer skating, while skiing can be had in Kashmir.

In addition to these, athletics, swimming, boxing and wrestling are vigorously pursued. Indoors, chess, billiards, table tennis and card games are great favourites.

In 1951, India inaugurated the Asian games. Japan, making its first appearance since the war, scored the most points while the host country came second.

Indian talent in table tennis compares favourably with international standards. In recent years, there has been a spectacular improvement in the quality of the game, mostly through the frequent participation of Indian players in world tournaments and the periodic visits of eminent exponents of the game to this country.



CHAPTER XXV

LANGUAGE AND LITERATURE

THE Indian Constitution recognizes fourteen languages. Hindi, the language of nearly 44 per cent of the people, has been declared the State language, but for a period of fifteen years English will also continue to be in official use.

ORIGIN AND GROWTH

Indian languages have been classified under four heads: (1) Indo-Aryan, (2) Dravidian, (3) Austric and (4) Sino-Tibetan. The Aryan languages are descended from the ancient speech of the Indo-European invaders who came to India from their original homeland in the Eurasian plains. The oldest form of Aryan speech is to be found in the Vedas, the four sacred books of Brahminism, believed to have been compiled in the tenth century B.C. Vedic Sanskrit gradually evolved into what are known as the middle Indo-Aryan dialects. Between 600 B.C.-1000 A.D., the period of Aryan expansion, they gradually spread over northern India. The early literature of Buddhism is enshrined in Pali, one of the earlier Indo-Aryan dialects. By the tenth century A.D., the middle Indo-Aryan dialects gradually developed into the modern Indo-Aryan languages.

The most important of these is Hindi and, on the basis of the numbers who speak it, it is the third most important language in the world after northern Chinese and English. The home districts of Hindi are eastern Punjab and western Uttar Pradesh. It has also come to be accepted as the

literary language of the neighbouring areas. Hindi is easily understood by people who speak other Aryan languages, such as Bengali, Assamese, Oriya, Marathi and Nepali. It is thus the most representative language of modern India.

Though Delhi is reputed to have been the birth-place of Urdu, it is known that Persian-speaking soldiers had settled down in the Punjab two hundred years before the first Sultan ascended the throne in Delhi. They intermarried and spoke a variation of the local language, heavily interlarded with Persian. Soon after the combined forces of Ghoris and Ghaznavis had entrenched themselves in Delhi, Urdu was well formed and within a few years, it has passed into common parlance.

Urdu thus evolved as a result of Persian influences on Hindi and came to be written in Persian characters. It became current in north-western and upper Gangetic India and later in the Deccan.

The Dravidian languages, spoken by 20 per cent of the people, have their home in peninsular India. Tamil, Malayalam, Telugu and Kannada are the most important among them. Tamil, the oldest member of the group, preserves a good deal of the general character and vocabulary of the ancient Dravidian speech; it has a most extensive vocabulary. Malayalam is closely related to Tamil and has borrowed considerably from Sanskrit. It acquired a separate identity and character in the ninth century A.D.

Primitive tribes constituting 1.3 per cent of the population and living in regions between Bengal and Bihar speak dialects of their own and till recently, they did not even have a script. These languages are said to be related to those of south-east Asia and, along with them, they are described as the Austro-Asiatic languages. They are believed to have come to India with the invaders from the north-east long before the Indo-Aryan invasion.

Sino-Tibetan languages are used by small tribes along the southern slopes of the Himalayas and in north Bengal and Assam. Newari of Nepal and Meithei or Manipuri of Manipur are the more important among them. These tribes

are now learning Bengali or Assamese and are rapidly becoming bilingual. They constitute 0.35 per cent of the population.

In spite of the diversity of languages and dialects in India, there is a basic unity of character underlying them; each of them bears the influence of a commonly shared culture.

LITERATURE

Among the Indo-Aryan languages, the Vedas are the most ancient collection of hymns and religious writings, which are believed to have been compiled in the tenth century B.C. They consist of four books; the earliest, the Rig Veda, being older than the Homeric poems.

By about 600 B.C., the old Indo-Aryan languages of the Vedas metamorphosed into Prakrit (as they later came to be known) just as Latin changed into Italian. The Brahmin priests continued the study of the old Vedic language and developed a younger form of Vedic speech known as Sanskrit. It soon became the language of the sophisticated and even if it is not spoken today, it has been in use ever since. The two great epics of ancient India, the *Mahabharata* and the *Ramayana*, which assumed their present form during the lifetime of Christ, were written in Sanskrit, as were also the *Puranas*—books on religious and historical traditions. Meanwhile, certain heterodox systems of philosophy were founded by Mahavira and the Buddha. Their followers produced a great mass of literature in Pali and various other dialects. To these must be added the older literature of Tamil whose earliest specimens date back to the beginning of the Christian era. In Tamil, beautiful poetry was composed under a different inspiration—that of ancient Dravidian culture.

From the tenth century onwards, Telugu, Kannada and Malayalam developed rapidly and much valuable writing was done in each of them. Modern Indian literature may be said to have begun with the emergence of the new

Indo-Aryan and the Dravidian languages of the South after the first century A.D.

HINDI

The epics and ballads of Rajputana detailing the exploits of Hindu kings against the Muslim invaders constitute the beginnings of Hindi literature. The great work *Prithviraj Raso* written by Chand Bardai is a landmark in Hindi literature. This was followed by a revival of Vaishnavism and the literature of the *Bhakti* period was characterized by an intense extrovert devotion to an omnipotent god who, from time to time, assumed human form to cleanse the world of evil. To the *Bhakti* movement belong the saintly poets like Kabir, Mirabai, Surdas and Tulsi Das. Kabir, a Muslim by birth, became the disciple of a Brahmin and sought to combine the valid elements in Hinduism and Islam into a philosophy of his own. Between the sixteenth and seventeenth centuries, Tulsi Das rewrote the *Ramayana* in the old Awadhi form of eastern Hindi. In Rajasthan, Mirabai sung the praise of God in ecstatic terms and her rhythm and devotion swayed millions of hearts. Between the seventeenth and nineteenth centuries, some of the best lyric poetry was written in Hindi, but towards the end, there was a decline in its quality. With the advent of printing and English education, Hindi received a fillip and Hindi prose has since developed rapidly. Prem Chand introduced the short story and today, there are a number of writers experimenting with all literary forms.

BENGALI AND ASSAMESE

Chandidasa was a great Bengali poet of the fourteenth and fifteenth centuries. He wrote some fine lyric poetry. A biography of Chaitanya, a Vaishnava religious reformer, by Krishnadasa Kaviraja is an outstanding work in Bengali prose. Narrative tales of heroism and devotion and romantic ballads occupied a prominent place in Bengali. Bankim Chandra Chatterji, novelist and essayist, is considered the greatest writer of modern Bengali literature before

Rabindranath Tagore. Iswarchandra Vidyasagar became a household name in Bengal and at about the same time Michael Madhusudan wrote English and Bengali poetry of considerable merit. In 1913, Tagore won the Nobel prize for literature. It is to Tagore mostly that modern Bengali is indebted. A standard Bengali is used for prose throughout the province and Bengali has probably been more susceptible to Western influences than any other Indian language. Standard Bengali translations of Shaw, Eliot and Ezra Pound are popular in Bengal.

Assamese has a devotional literature of rare quality in the writings of Sankaradeva and other writers of the fifteenth and sixteenth centuries. A striking feature of Assamese literature is the series of prose chronicles known as *buranjis*. These are imitations of the chronicle of the Ahoms who had affinities with the Siamese and conquered Assam in 1228. They ruled over the province for six centuries and were subsequently absorbed in the local population.

WESTERN INDIA

In the Maratha country, Jnandeva wrote a commentary on the *Bhagavad Gita*, a memorable episode from the *Mahabharata*, where Lord Krishna accords divine sanction for the use of violence against evil. Jnandeva was followed by a succession of saintly poets and reformers of whom the most popular was Tukaram. The ballads or *powadas* of Maharashtra narrate episodes from Maratha history. The foundations of modern Marathi prose were laid by the earlier essayists writing chiefly on social and political reforms. Chiplankar, Agarkar, Ranade and Tilak were among the important writers. Hari Narain Apte developed social awareness through the novel.

Mahatma Gandhi and K. M. Munshi have made significant contributions to modern Gujarati literature and journalism.

SOUTH

Under the patronage of the powerful rulers of the

Vijayanagara Empire, some poetry of value was written in Telugu. Ballads, historical narratives, didactic poetry constituted the bulk of Telugu literature during this period. In modern Telugu, *Soundaranandam* is acknowledged to be the finest piece of poetry. Venkata Sastri, the first Telugu poet laureate, has several poetical works to his credit. Modern Malayalam draws its inspiration from classical Sanskrit and European sources. Vallathol's poetry is characterized by a very sensitive social conscience.

In the twelfth century, the *Ramayana* was translated into Tamil by Kambar and this book will remain an outstanding work for all time. The advent of English, though it temporarily diverted attention from Tamil, has on the whole had a very salutary influence. Poet Bharati was the leader of the revivalist movement and, since his time, Tamil literature has made rapid progress.

Bendra and Puttappa are two well-known names in contemporary Kannada literature and the modern Kannada novel deals predominantly with social problems.

URDU

When Tughlak invaded the Deccan in the first half of the fourteenth century, Urdu was transplanted to fertile soil. It was from Telugu and Kannada-speaking areas that Urdu literature first received distinctive contributions. The King of Golconda (1580-1611) was a talented poet from the South but Wali, another poet of stature belonging to the Moghul period, was the greatest of them all.

In the meanwhile, Urdu was spreading from Delhi and there grew up a refined class of courtiers well versed in polite letters. The best Urdu prose was written by the so-called "Fort William" writers. Towards the end of the nineteenth century, Ratan Nath Sarshar wrote the first novel in the language. While Hali was the first of the moderns, Iqbal was undoubtedly the greatest among them and is very widely read. Of the short-story writers, Prem Chand is universally acknowledged to be the best. Among the living poets, Josh is probably the most outstanding

CHAPTER XXVI

PAINTING

INDIAN painting like all ancient Indian art is social in its inspiration. Unlike the modern artist, who improvises techniques sometimes merely to establish his difference and singularity, the Indian artist of old was content to remain anonymous and to create within a given framework of codes and regulations. The means of self-expression accessible to the modern artist, such as the choice of theme, colour and technique, were denied to him. Ancient Indian art has thus to be looked upon as the mode of expression of a multitude of talented draughtsmen whose art acquired meaning and unity only in relation to a functional society where every calling was ordained.

The history of Indian painting is the story of ancient Indian civilization in pictures. The frescoes in the Ajanta caves are largely based on the *Jatakas*, depicting the life of the Buddha with incidents from his previous incarnations in rich hues of blue, red and yellow. Thanks to the confusion in the mind of the artist between the legendary and the contemporary situation, some of these frescoes came implicitly to reflect aspects of contemporary life.

Ajanta was a Buddhist monastery, about sixty miles from Aurangabad. In the recesses of a mountain resembling a horse-shoe, twenty-six caves and four *chaityas* were carved out and their walls and ceilings profusely painted. The paintings were executed over a period of several centuries beginning from the first century B.C. Time and



Padmapani Bodhisattva (Ajanta)

vandalism have told on their artistic wealth, and only a few of the caves have been spared to posterity. The Ajanta artists worked out the melodic possibilities of the line and skilfully modulated the colours to impart a plastic suggestion to the frescoes. Ajanta has thus remained a perennial source of inspiration to all Indian and even Asiatic art.

The frescoes are by no means peculiar to Buddhist art and their technical excellence survived their associations

with various religions. For instance, in the sixth century A.D., they were used to expound the values and ideals of Brahminical Hinduism. The caves of Badami at Bijapur are the earliest extant examples of Brahminical painting. They tell the story of Siva and Parvati, their marriage and Siva's dance. The Jain frescoes of Sittanavasal in Pudukotah were executed during the seventh or eighth century.

In the cave paintings of Ellora, which narrate the exploits of Siva and the *avatars* of Vishnu, the Ajantan line had lost its flow and continuity and had become brittle and angular. However, these are universally accepted as some of the best achievements of Indian painting.

By the beginning of the ninth century, the art of fresco painting had lost much of its verve. Miniature painting had come into vogue and thus grew the Pala School of Bengal during the ninth and twelfth centuries. It employed simple compositions to illustrate palm leaf manuscripts of Buddhist scriptures.

Similarly, between the eleventh and fifteenth centuries, the Gujarati School illustrated Jain scriptures with miniature paintings. In the early period, palm leaves were used, but by about the fourteenth century paper had come into use. Some of the best extant specimens of this school of painting belong to the transitional phase in which the palm leaf was being discarded in favour of paper. Though the early miniatures were confined to the Jain texts, they appear later as illustrations in the sacred books of the Vaishnavites also. The art of love and the pleasures of the spring are the more important examples of their secular themes.

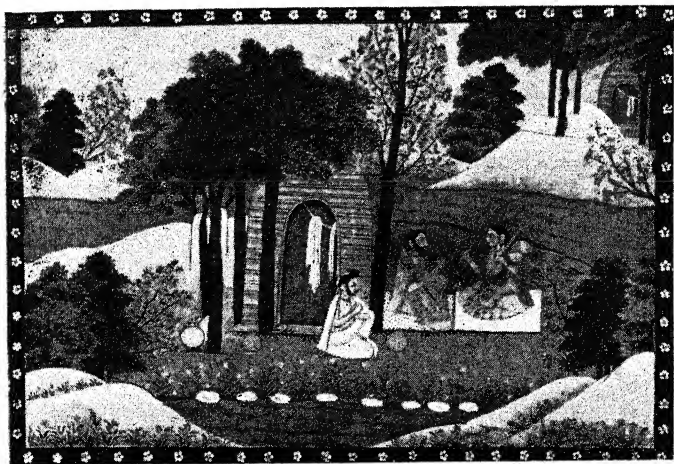
MINIATURES

By the middle of the sixteenth century, the mediaeval period in painting had come to a close and the Rajasthani miniature made its appearance. In fact, the Gujarati School provides a link between the frescoes of the Gupta period and the miniatures of Rajasthan and the western Himalayas. Dr. Ananda Coomaraswamy accords

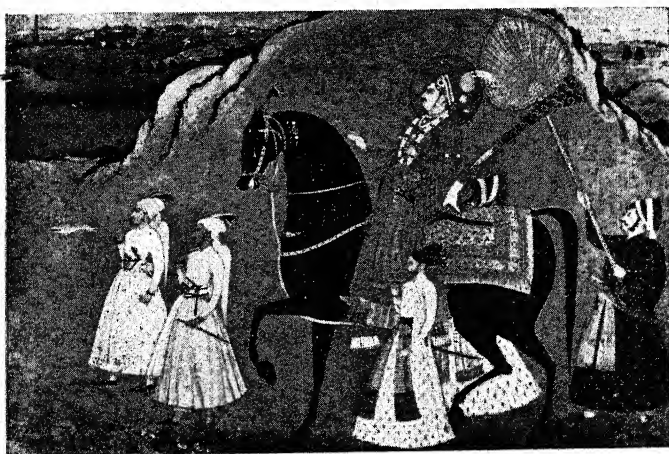
the Rajasthani miniatures "an honourable place among the great arts of the world." It is firmly rooted in the earth and among the common people who inhabit it, its central theme being love. The artists convey traditional ideas in a variety of exuberant colours. These paintings, which share the characteristics of both secular and didactic art, combine religious fervour with lyricism and rhapsody. The colours are bright without being tawdry.

In Rajasthani art, scenes from the *Ramayana* and the *Mahabharata* are brought to life in vivid colours. The lasting contribution of Rajasthani painting to Indian art is perhaps the *Ragamala*. Painting like all other arts "aspires to the conditions of music," and artists all over the world are known to have progressively moved away from the method of forthright statement; they prefer to produce a mood or indicate an idea by suggestion. Each *raga* (meaning a musical mode) suggests a particular sentiment and has an appropriate time of the day for its perfect evocations; either the dawn or the early evening: either the dalliance of extrovert lovers or the lover who pines for her consort. The *Ragamalas*, literally meaning a garland of musical modes, seek to render explicit the relevant moods which inspire particular *ragas* through line, form and colour. For instance, the pictorial representation of the Todi *ragini* is usually of a charming woman who plays the *vina*, a musical instrument peculiar to the South, which attracts bright-coloured deer and other animals hearkening in silence.

While simplicity and lyricism mark the miniatures of the sixteenth century, the art of the following century is more sophisticated. Symbolism is used for the first time to illustrate the moods of love. Between the seventeenth and nineteenth centuries, the *Pahari* school of painting flourished in the remote valleys of the western Himalayas. The life of Lord Krishna, the cow-herd god and his amours with the milkmaids, dance and music are the themes of *Pahari* miniatures. In contrast with Basholi, whose hot colours exude vitality, the Kangra school is noted for its soft



Meeting of Valmiki and Narada (Kangra)
 Maharaja Abhai Singh of Jodhpur (Rajasthani)



colours and melodious lines. The feminine figures, though not original, are drawn with great delicacy.

MOGHUL PAINTING

The Moghul school of painting, as is well known, was influenced by Persian traditions during the first half of the sixteenth century. It was essentially a secular art, created for the amusement of the emperors and the nobility at the court. Portraits, pictures, colourful ceremonies at the court, hunting scenes, studies of birds and flowers form the bulk of Moghul paintings. Religion, legends and the life of the people did not interest the nobility which attached great importance to technical excellence and craftsmanship. Lines were drawn with a fine brush made from the hair on a squirrel's tail, and some of the artists executed fine paintings with the single-hair brush.

During his brief reign, Humayun employed two well-known Persian artists. But Akbar, who succeeded him, was an eclectic and a great connoisseur. His court represented a cross-section of all schools of painting in the country. The paintings executed under his patronage absorbed the best of Rajasthani and Persian influences. He employed several artists mostly to illustrate Indian and Persian manuscripts. Large-sized frescoes were also painted to adorn the palace walls. They have, however, perished, and all that remains of them are a few specimens in Akbar's palace at Fatehpur Sikri. The miniatures were painted on fine Indian and Chinese paper; they were not hung on walls, but compiled in albums.

Akbar's son, Jahangir, was fond of birds, animals and flowers. He kept alive the artistic traditions of his great father, but under him painting assumed a new role. Its use was no longer restricted to the illustration of manuscripts. And it was under him that portraiture became a widely practised art. The Emperor often referred to Mansur as the greatest of all animal painters, and Bhisandas as supreme at portraiture.

The Moghul painters drew from living models and



Baz Bahadur and Rupmati (Moghul)

some of their paintings are penetrating studies in character. Although Shah Jehan was more interested in architecture, Moghul painting continued to be patronized during his reign. A new style of portraiture was thus evolved and its exquisite work was heightened by a few touches of colour. With the accession of Aurangzeb, court patronage was withdrawn and the artists had to fall back on minor courts of the various principalities of the realm.

Moghul art was highly individual and the artist did not conceal his identity. The element of formalism, however, persists through the later Moghul painting.

Moghul art finally outgrew its initial stimulus. While it indisputably bears the impress of Persian influence, it became Indianized eventually. Notwithstanding the resistance of a few artists, who sought to preserve the purity of the Persian tradition, the series of acculturations that had gone to make up Indian life slowly permeated Moghul art and gave it its Indian character, which it retained.

THE MODERN PERIOD

The Dharamsala earthquake of 1905 wiped out a whole community of painters. The inspiration that gave rise to Moghul and Rajasthani art had lost its verve and the miniatures and portraits, still painted in imitation, bore no relevance to a changed situation. The impact of European culture led to the formation of art schools under European guidance in Calcutta and some other provincial towns. Of all the artists of this period, who sought to borrow from the techniques of the West, Raja Ravi Varma alone reached a standard of technical adequacy that deserves mention.

It was, however, Havell's insistence on the tradition of Ajanta and Rajasthan that weaned Indian students from indiscriminate admiration of Western art. Havell, the head of the Calcutta School of Art, was one of the pioneers of the movement which sought to reapproach the wisdom of the past with informed veneration.

Indian artists abandoned European methods of oil



Abhisar by Dr.
Abanindranath
Tagore
(Modern)

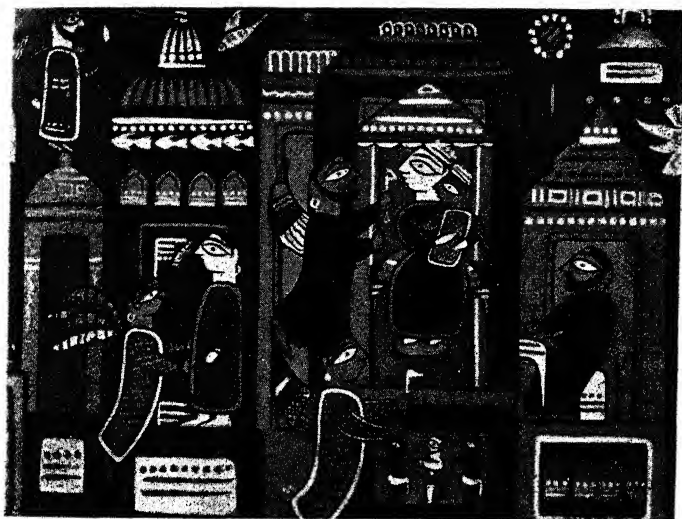
painting and returned to water colour. Western ideas of verisimilitude and correct realization of perspective were given up and they turned to the *Ramayana*, the *Mahabharata* and to Kalidasa for their themes. They further drew freely from the legacy of Japanese and Chinese paintings. Abanindranath Tagore evolved a distinctive synthesis of the traditions of Chinese calligraphy, of Japanese colouring and Persian finish. Like Rossetti who recaptured the quaint

devotion of the Italian primitives in his Christian themes, Nandalal Bose recreated the atmosphere of Ajanta.

Unlike Bengal, Bombay was attracted by the eclectic method. In 1919, Western technique was included in the curriculum and "life classes" were started. The authorities, however, knew better than to ignore the decorative tradition in Indian art. They were alive to the dangers of overdoing the life classes and a separate class for decorative painting was therefore started. These measures obviated the dangers of transplanting new techniques to alien soil and narrowed down the differences between the Bombay and Bengal schools. In the murals on the secretariat at New Delhi, executed by students of the Bombay school, the Ajantan element is conspicuous.

A vital issue was forgotten in the controversy centring around the use of Western and traditional techniques. The protagonists of neither school realized that the modern temperament needed to be interpreted in a new way and that its interests would not be served by controversy. And, when the works of the moderns caught the public eye, neither the traditionalists nor the representationalists scored a point. Modernism often evolved and supplied its own needs and thus served to obscure the differences between the two schools. Though the modern artists ostensibly belonged to the one school or the other, they had to improvise and, in so doing, had to explore outside the precincts of known territory.

Gaganendranath Tagore, Rabindranath Tagore, Jaimini Roy and Amrita Sher Gil were the pioneers of modern Indian art. Rabindranath was a creative writer and did not have to fall back on myth and legend. Technically more competent, Gaganendranath was more concerned with contemporary society and its problems and effectively ridiculed social foibles in fluently drawn black and white sketches. For a time, he experimented with cubism and developed the pictorial possibilities of light. He served to infuse confidence in younger artists who wanted to break



Madonna and St. John by Jamini Roy (Modern)

away from the revivalist movement in search of freer expression.

- Dissatisfied with his early work executed in the styles of the West, Jaimini Roy modelled his work on folk-art and turned to the *pat*, the scroll and the motifs of decorations on village pottery for form. He found the technique of the revivalists overburdened with recondite allusions.

A spirit of intense devotion pervades the work of Amrita Sher Gil. She also pleaded for a return to the spirit of Ajanta—not so much for subject matter or form. To her Ajanta symbolized an integral relation between the artist's message and his choice of form and colour. To each artist, there exists a specific and unique organization of form and colour which alone can convey his meaning. She proved that an artist who chooses a secular theme can

convey earnestness and dedication as much as another who relied on religious subjects.

Contemporary Indian art abounds in outstanding names and is more difficult to evaluate because of its heterogeneous tendencies. It is inspired by influences from various countries. This is undoubtedly the most fruitful if gestative phase in Indian painting



CHAPTER XXVII

SCULPTURE

Asokan Bull Capital

At its best, Indian sculpture was an integral part of architecture. Also, like the other Indian arts in the past, it was conditioned by its religious purpose. Though it was made to subserve building designs, it has retained its character as a medium in its own right. The idea which it sought to convey was more important than form, with the result that sculptors idealized the human figure.

The earliest specimens of Indian sculpture belong to the Indus valley civilization. Engraved seals and terracottas were executed with great skill, evidencing periods of artistic activity before the advent of the Mohenjo-daro civilization. Wood and clay were the materials used by the sculptors of Mohenjo-daro and their successors. There are thus hardly any extant specimens of this period, particularly between 2000-500 B.C.

Meanwhile, the Aryans conquered the country, and introduced the Vedic religion. Between the eighth and



**Buddha delivering his
first sermon at Sarnath**

fifth centuries B.C., Brahminism, Buddhism and Jainism drew a large following, and in the reign of Asoka, Buddhism became the religion of the State. Asoka had a number of pillars erected with edicts inscribed on them; on their capitals were sculptured animals, such as bulls, elephants, lions and horses. Often, the sculptor turned out works of considerable magnitude. The stone structures of *yakshas* and *yakshis* (nature spirits) are of colossal size.

Since the deities were more powerful than men, they were represented in large dimensions. The sculpture of the post-Asokan period consists mostly of bas-reliefs on the rails and gates of *stupas*, depicting incidents from the life of the Buddha and legends of his previous births. No image of the Buddha occurs in the earlier period. He is generally represented by the Bodhi tree, the wheel of law, a throne, an umbrella or his footprints. The Vedic gods, who had been adopted by other religions also, were not forgotten. At Bhaja, the rock-cut monastery near Poona, there are reliefs of the Sun god riding his chariot and Indra on his elephant. Since there was no rivalry between Hinduism and Buddhism at this stage, Hindu deities found a place on the walls of Buddhist temples and monasteries.

In the second century A.D., the Kushan kings established their rule in northern India while the south was under the Andhras. The sculpture of the Kushan period was done on reddish stone, and a stupendously large image of the Buddha was sculptured in Mathura. In the tradition of the colossal Mauryan figures, this image represents an advance in artistic conception and execution, though the Buddha's expression had not yet acquired the serenity which characterizes the images of the later periods. It was the Mathura Buddha and not the Gandhara one which became the model for the Gupta period. Mathura is also famous for the full bodomed, slim-waisted nymphs and dryads carved on *stupa* rails and pillars. They are striking examples of linear grace and bespeak a feeling for form and mass. Specimens of Andhra sculpture can be found at Karli and Kanheri in western India and Amaravati to the south-east. The reliefs on the *stupa* railings are said to be beyond compare for sheer sculptural beauty and technical skill in the pre-Gupta period. Those times are chronicled in lissom figures with a striking suggestion of movement. These finely carved reliefs bring to mind the lines of a Moghul painting.

With the rise of the Gupta dynasty in the fourth century A.D. began a period which is generally described as the golden age of architecture and sculpture. The Gupta king-



Parvati at Ahichchhatra

dom was politically integrated, and for the first time one could truly speak of a national culture. The sculpture of this period is characterized by simplicity and refinement, and is very often inseparable from its architecture. The treatment of drapery is such that its lines aid the modelling of the figure. The best specimens of the Buddhist sculpture of this period are to be found at Sarnath and Mathura and in the caves of Ajanta, Bagh, Aurangabad and Kanheri. The Buddha's face gradually acquired tranquillity, and "the eternal Buddha dreaming his eternal dreams" thus came into being.

During this period, the principles which created the Buddhist masterpieces were also applied to Brahminical themes, and for the first time Brahminical sculpture produced a whole pantheon of gods—far more numerous than



Chola queen (South Indian
Bronze)

those of Buddhism. Specimens of Brahminical sculpture are to be found in the caves of Aihole, Badami and Udaygiri. The pillar brackets of the Vaishnava caves at Badami are the finest of their kind. A feeling of intense devotion, absent in later periods, pervades the sculpture in the Dasavatar temple of Deogarh and the caves of Aihole.

In the seventh and eighth centuries, Brahminical gods and goddesses were imbued with amazing vitality and rhythmic movement. Though the modelling was done in simplified planes, the total effect acquired a vigour suggesting movement.

The best specimens of the sculpture of this period can be seen at Ellora, Elephanta and Mahabalipuram. The Hindu pantheon is sculptured in relief on the walls of the caves at Ellora. At Elephanta, the figure of the Trimurti



Dancing goddess
from Belur temple

Siva, Creator, Preserver and Destroyer, is an outstanding contribution of this period.



Trimurti Siva at Elephanta

The monolithic rock shrines of Mahabalipuram have some of the most robust sculptures. In the medieval period, sculpture fell into ornate use, and was made to adorn pillars, friezes and brackets in temples. Gods and goddesses were carved with a number of heads to represent their multifarious aspects. The temples of Khajuraho and Mount

Abu were profusely carved with a variety of subjects, including erotic themes. But with the Mohammedan conquest of the north in the thirteenth century, many temples were destroyed and temple building was more or less restricted to the south. The best examples of temple sculpture of southern India belong to the times of the Cholas and Pandyas. The Cholas are remembered by the Tanjore temple and the Pandyas, by the temple at Madura. The art of the ancient masters has not been forgotten to this day and specimens can be found in South India, Rajputana and parts of northern India and Gujarat. But the work lacks inspiring faith and the forms tend to be stereotyped.

Modern sculpture, like painting, has experienced a revival. While the general trend is towards social awareness and the simplification of form, there are some sculptors who have been content to follow the rhythmic, decorative tradition of the wood nymphs of the Gupta period. Others like D. P. Roy Chowdhury, B. Ramkinkar, V. P. Karmarkar and Chintamani Kar have been considerably influenced by European art. Concurrently with experimentation in theme and style, the possibilities of new media like concrete and wood are also being explored.

CHAPTER XXVIII

ARCHITECTURE

INDIAN architecture has developed under two influences. While religion has decreed its form, the evolution of constructional methods and building materials has determined its structural principles. It falls naturally into five periods: pre-Buddhist, Buddhist, Hindu, Muslim and Modern. Generally speaking, the earlier architecture is trabeate. An all-pervading symbolism, a plastic conception and the use of heavy masses are its main characteristics. Construction involved vertical and not lateral pressure, until, in the twelfth century, the true arch was introduced. With the beginning of the Muslim period, the art of building became almost geometrical, the square, the cube, the circle and the hemisphere being the forms mostly employed.

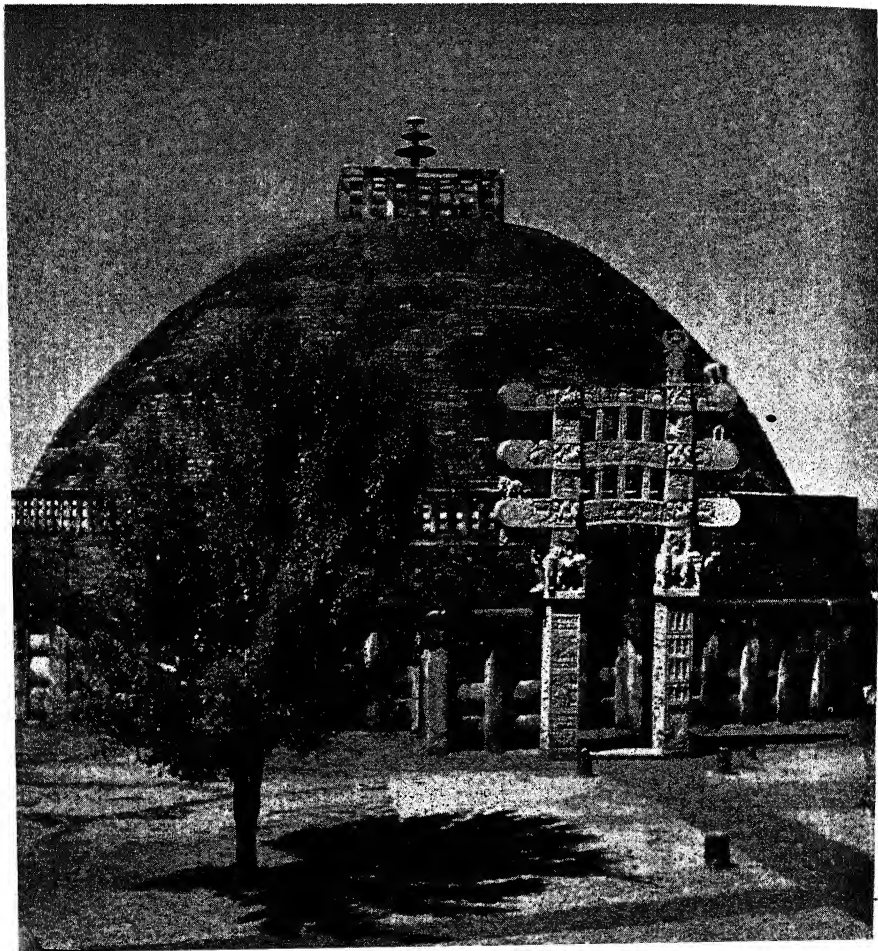
PRE-BUDDHIST PERIOD

The cities of Harappa and Mohenjo-daro,* belonging to the pre-Aryan civilization (3,000-2,000 B.C.) are the earliest evidence of architecture of India. They consisted mainly of homesteads, store-houses, baths, avenues and wells. Built in brick, the style was plain and functional. The extant ruins point to the existence of a perfect drainage system, telling of a high degree of planning and engineering skill. Of the Vedic period (circa 1500 B.C.), there is no surviving relic. Presumably, impermanent

*A Sindhi word meaning "the place of the dead"

materials, such as earth, stucco, bamboo, etc., were used in the architecture of this period since the Vedas speak of rites calling for the erection of fire-altars and sacrificial halls. Later, wood was chiefly used, and there is reason to believe that stone, too, was occasionally pressed into service.

Stupa at Sanchi



BUDDHIST PERIOD

The earliest surviving examples of Buddhist architecture are the *chaityas*, also called *stupas*. These structures form memorial mounds over the relics of holy personages. The term *chaitya* itself, derived from the root *chita* meaning a pyre, has come to denote in general a shrine, an altar or a temple, while *stupa* is the technical name given to these mounds. Typical of this form are the structures at Sanchi. Originally built in brick by Asoka in the third century B.C., the stone coverings, railings and gateways are believed to have been added later, mostly in the first century B.C., and continued up to the fourth century.

A *stupa* essentially consists of a base of different geometrical designs on which is mounted a hemispherical dome (*anda*), truncated at the top. The summit of this dome carries a small pavilion (*harmika*) from which rises the shaft (*danda*) of the parasol (*chatra*). The *chatra* was the Indian symbol of sovereignty. The top of the parasol, originally one, gradually increased in number evolving into the Indo-Aryan spire which consists of a central shaft rising through a series of parasol tops laid one over the other. Along the margin of the terrace runs a massive stone balustrade made up of posts (*stambhas*) and cross-bars and mounted by copings. The walk on the terrace between the dome and the balustrade served as a procession path. Set in these stone railings are four gates or *toranas* which consist of two uprights supporting one or more horizontal beams; the lintel is profusely carved with reliefs and ornaments.

Next come the two main forms of Buddhist architecture, the *chaitya* and the *vihara*. The *chaitya* was a temple of worship and the *vihara* a place of residence and assembly. The *chaityas* at Bedsa, Nasik, Karli and Ajanta illustrate the development of this form. A typical *chaitya* is a long, apsidal building with a barrel-vaulted roof, and a nave and aisles terminating in an apse or semi-dome. Rows of pillars separating the nave from the

aisles continue round the apse. Contained in the apse is the rock-cut *stupa*, somewhat in the position of an altar in a Christian church, and directly opposite the *stupa* is a horseshoe-shaped window. Cave 19 at Ajanta presents perhaps the best example of a full-fledged *chaitya* hall. The *viharas* are rectangular halls surrounded by cells, the centre of the back wall providing the sanctum.

THE INDIAN PILLAR

The *chaityas* at Bedsa, Nasik and Karli also offer interesting studies in the development of the *stambha*—the Indian pillar. A *stambha* consists of a shaft surmounted by a capital or abacus of upturned lotus. The cornice consists of effigies of bulls and horses and sometimes human couples (*mithunas*). The *stambha* of cave architecture reminds one of Asoka pillars carrying effigies of animals associated with the various incarnations of the Buddha. Later, as at

Sun temple at Konarak



Ajanta and Badami, the *stambha* evolved elaborate shapes.

HINDU TEMPLES

The Brahminical form of worship was already in existence when Christ was born, and the Hindu temple is indicated in embryo in a *stupa* in one of the Ajanta caves which has an image of the Buddha carved on it. The earliest surviving temple is the flat rectangular shrine at Sanchi; it belongs to the early part of the fifth century. Exquisite ornamentation with bands of relief figures and scrolls is the characteristic feature of the flat-roofed temples of the Gupta period. A special motif in these relief figures is the row of couples or *mithunas*.

The shrine at Sanchi contains the nucleus of a Hindu temple, of which, as a type, the distinguishing features are : (1) a cubical cell (*garbha-griha*) containing the image of the presiding deity surmounted by (2) a tower with (3) a porch (*mandapa*) in front, and (4) a perambulation path (*pradakshina patha*) round the temple, which is sometimes in the form of a narrow passage with a sloping roof and is called the *ardha mandapa*. Also, in some southern temples, a small room (*antarala*) is added between the cell and the porch.

By the sixth century, three distinct structural styles had evolved: the Nagara, the Dravida and the Vesara. Of these, the first two carry the *sikhara*, while the Vesara is characterized by its barrel roof.

The Vesara was evidently derived from the cave shrines of the Buddhist period. Typical examples are to be found in the *rathas* of the Seven Pagodas at Mahabali-puram.

The Nagara also known as the northern or the Indo-Aryan type has flourished in North India where the worship of Vishnu predominates. Its characteristics are the curvilinear *sikhara* and a peculiar finial of ribbed *amalaka* (symbolic myrobalan) culminating in a *kalasa* (auspicious jar). Scattered over Bhuvaneswar, Konarak and Puri in Orissa are 35 important temples with numerous replicas



in miniature, typifying the different stages of development in this style between the eighth and the thirteenth centuries. Among these, the earliest is the Parasrameswar temple (eighth century) while the Sun temple at Konarak is the latest, belonging to the fourteenth century. The Great Lingaraja temple (early eleventh century), with its aggressive development of the *amalaka* and the almost parallel lines of its tower, is characteristic of the Orissan group.

In Rajputana, the earliest example of the Nagara group is the Sun temple at Osia (near Jodhpur), attributed to the late ninth century.

The next important group of Nagara temples belonging to the tenth and eleventh centuries is found at Khajuraho in the former Chattrapura State. In these temples, an effect of magnificence is created by a cluster of smaller towers built around the principal tower; shaded balconies and sculptured facades add to the distinction. The finest among these, the Kandarya Mahadeva temple, is 116 feet high.

The Visvesar temple at Banaras, rebuilt on earthen foundations during the eighteenth century, is a later development of the Nagara, while the temple of Scindia's Mother at Gwalior (nineteenth century) represents the ultimate stage in the evolution of Orissan temples. New features were developed in Rajputana and are exemplified in the Jaina temples at Mount Abu.

Another interesting development in the Nagara style was the four-faced (*chaumukha*) temple employed mostly for the four-faced Jain images, each face overlooking an entrance.

The Dravidian temples, belonging to the South Indian school of architecture, are dedicated mostly to the worship of Siva. The earliest examples are the Saiva cave-shrines scattered over North Arcot and Tiruchirapalli.

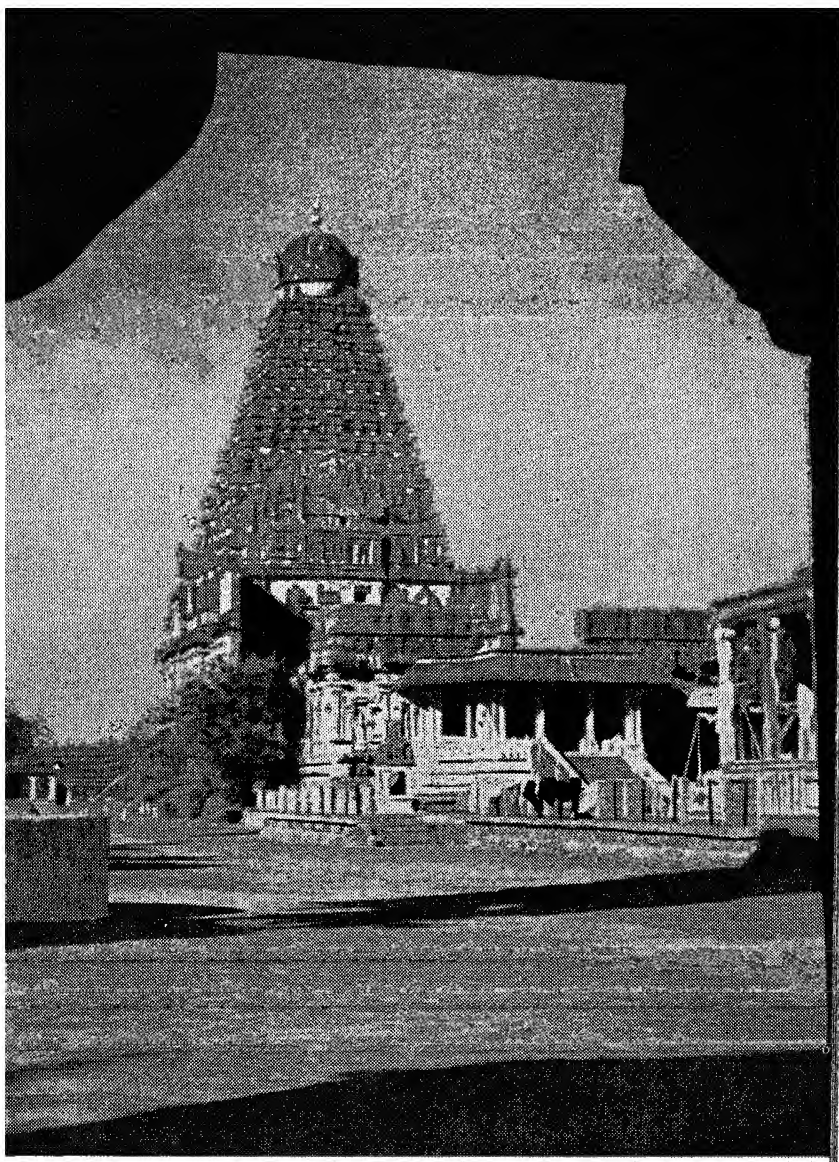
The first temple was built of dressed stones in the reign of Rajasinha of Kanchipuram (700-710 A.D.). An early example is the temple at Mahabalipuram, notable for its pinnacle (*chudamani*) over the *stupika*. The full-



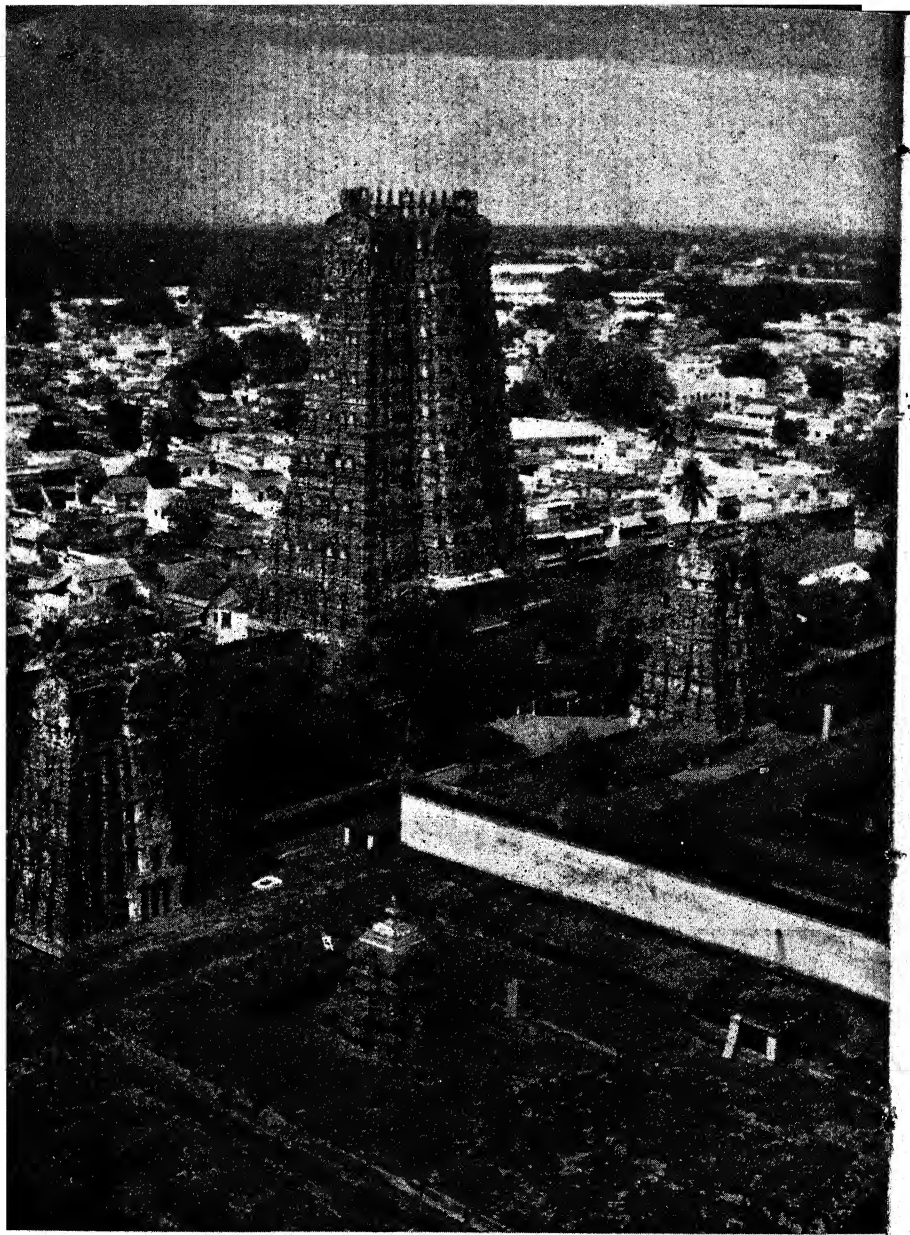
Ratha at Mahabalipuram

fledged Pallava temple is represented by the Kailasanatha temple (early eighth century) at Kanchipuram.

The Dravidian temple underwent further modifications under the Cholas, the successors of the Pallavas. The tower (*vimana*) increased in height and the pillars became slender and elegant. Characteristic of this period are the arches (*toranas*) over the niches (*devagostas*) and the large *mandapams* or pavilions resting on intricately carved pillars. The *gopurams* or gate-towers first appeared under the Cholas and are a special feature of Dravidian architecture; later they develop gigantic proportions almost dwarfing the main tower. The Siva temple at Tanjore (early eleventh century), the temple at Gangaikondacholapuram (eleventh century) and the *nartana-sabha*



Brihadeswara temple at Tanjore



Madura temple

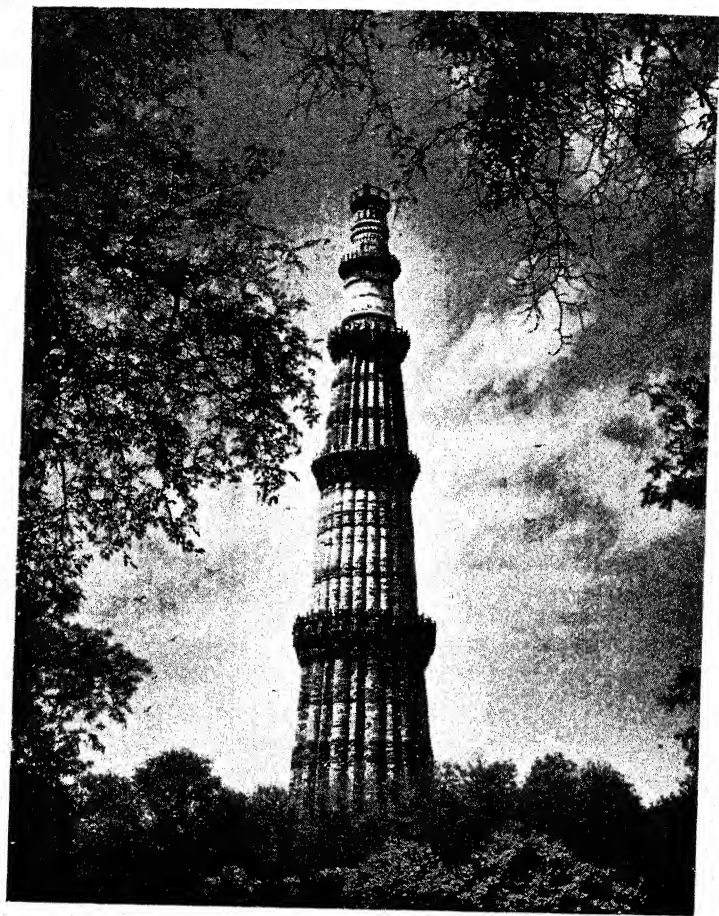
(dancing hall) at Chidambaram carry these modifications. The architecture of the later Chalukyas, (tenth to twelfth century) almost contemporaneous with the Cholas and the Pandyas, incorporates elements from both the northern and the southern styles. These temples, star-shaped in plan, cover a wide area, and are characterized by their low elevation. New forms of pillars and a distinctive tower are further improvements on earlier temples. The tower, very minutely carved, resembles a ribbed cone. Temples of this style are found at Ittagi, Gadag, Somnathpur, Belur and Halebid.

MUSLIM ARCHITECTURE

In the twelfth century, the Muslims brought to the indigenous art an inspiration drawn mainly from Syria, Egypt, North Africa and Persia. The new architecture, confined in the beginning to Delhi and its environs, later spread over the country; in the process, it developed a strong national character.

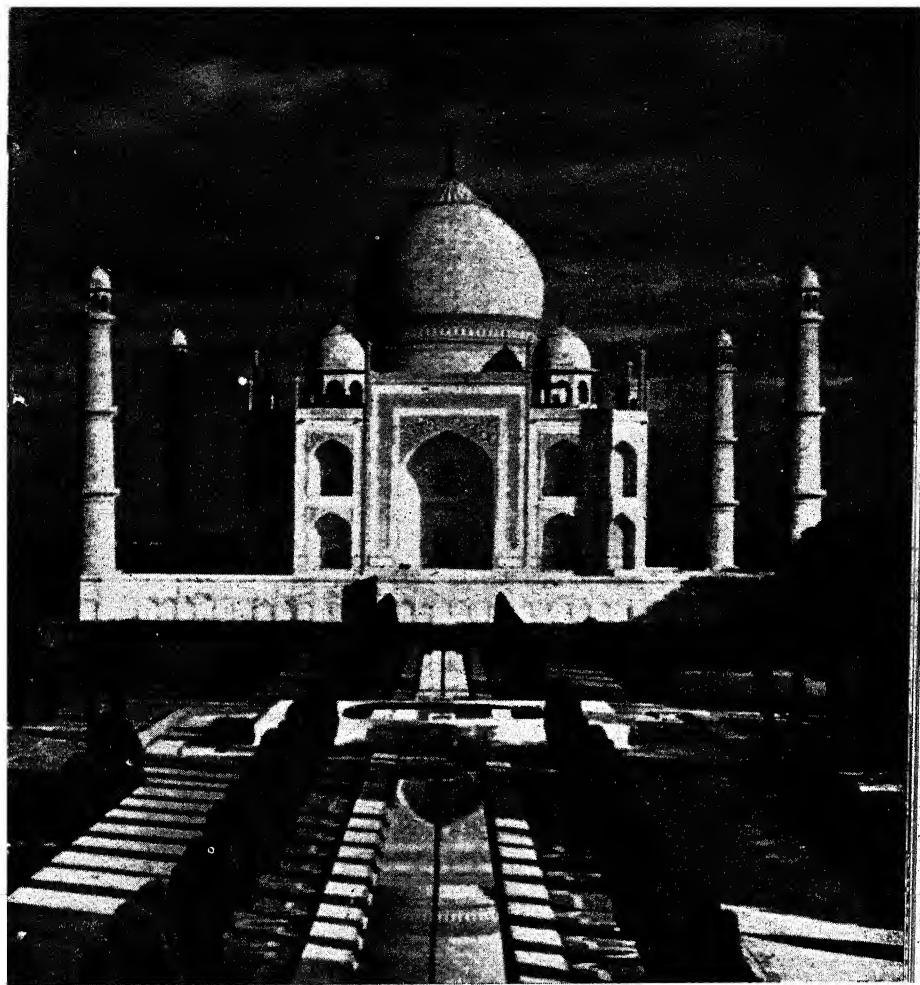
The Kutb Minar erected in 1191 by Kutb-ud-din-Aibak is the first outstanding structure in the Islamic style. Enclosed within a mosque, it was meant originally for the Muezzain's call, but was later taken for a tower of victory. The mosque was doubled by Iltutmush in 1229, and Ala-ud-din afterwards added a third court to it. To the Tughlak period (fourteenth to fifteenth century) belong the citadels of Tughlakabad and Kotila Firoz Shah. Massive walls, gigantic bastions, lofty, narrow portals and an overall repetition are peculiar to the architecture of this period. Along with an elaborate attention to surfaces, the Sayyid and Lodi kings, who followed, introduced the lotus finial on domes; they also used blue enamelled tiling successfully for decorative purposes.

Simultaneously, there was considerable building activity in the provincial capitals. They were developing their own individual styles, particularly between the thirteenth and the fifteenth centuries. In Bengal, annexed in 1198 by Muhammad Bakhtiyar Khan, the Muslims adopted, probably



Kutb Minar at Delhi

for the first time, bricks, bamboo and timber as building materials. Square, short brick pillars, curvilinear roofing

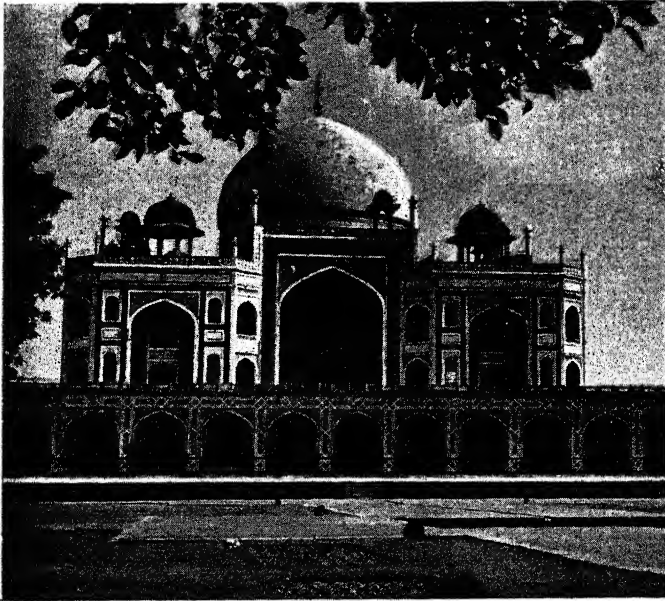


Taj Mahal

and surface decoration were the characteristics of the Bengal style which the Muslims incorporated into their own architecture. At Pandua, the Adina mosque built by Sikander Shah (1358-89) consists of an immense, open rectangle bounded by arched screens and arcades on all sides. One archway, loftier than the others, breaks the monotonous uniformity. At Gaur, the Dakhil Darwaza (1459-65) is an achievement in brick and terra-cotta while for sheer ornamentation the Tantipara Masjid is well famed. The local Muslim style of Gujarat was founded as early as the fourteenth century. Its outstanding monuments, the Jama Masjid and the Tin Darwaza, were built by Ahmed Shah, the founder of Ahmedabad. The Tin Darwaza has an exquisitely framed delicate archway. The Deccan modelled its architecture on the Tughlak and Khilji styles, and even after its secession in 1347, continued to follow in the imperial tradition.

While Babar and Humayun contributed almost little or nothing to architecture, Akbar gave it new life. Humayun's Tomb at Delhi built in 1564 consists of a square base and a terrace recessed in the middle of each side. Each face contains a doorway, and the great dome is mounted on a high drum while the hall in the interior is surrounded by chambers connected by corridors and galleries. The Fort at Agra has imposing walls in red sandstone and two exquisitely designed gateways. But it is at Fatehpur Sikri that Akbar as a builder is most fully revealed. Agra Gate, Jodh Bai's palace, Birbal's house, the *Diwan-i-khas*, the Jama Masjid and the Buland Darwaza are some of the most beautiful examples of Muslim architecture. Jahangir who followed Akbar was preoccupied with pleasure gardens, which, to this day, are found all over North India, the most beautiful being the Shalimar at Srinagar.

The next important development in Islamic architecture was the mixed use of red sandstone and white marble introduced by Shah Jahan, who built the Taj at Agra and the Red Fort and Jama Masjid at Delhi. While the



• Tomb of Humayun at Delhi

Red Fort and the Jama Masjid are noble and dignified, the Taj is unique.

At Bijapur, the Adil Shahi dynasty introduced a new style seen in the Gol Gumbaz, the tomb of Muhammad Adil Shah (1626-60). It is distinctive for its octagonal turrets, the bracketed cornice below the parapet and an ingenious arrangement of arches.

Under the austere Aurangzeb, like the other arts, architecture too declined.

MODERN PERIOD

It is only now that Indian architecture is turning to secular uses. The attention that was formerly lavished

on shrines, temples and mosques is now being brought to bear on city lay-outs, houses, offices, theatres, hospitals, etc. As in painting and sculpture, the impact of Western influence is being keenly felt. Under the British, attempts were made to fuse modern functionalism into traditional forms, some prominent examples being the Government House (now Rashtrapati Bhavan), the Secretariat buildings at New Delhi and the Victoria Memorial at Calcutta.

The energies released by political freedom are active in the architectural field too, experimenting with new forms and methods of construction. For instance, Chandigarh, the proposed capital of East Punjab, is expected to be an outstanding achievement.



CHAPTER XXIX

HANDICRAFTS

Repousse plaque from Tanjore

THE art of our forefathers was more spontaneous than ours, for they were not oppressed by the need to create. Their art was incidental to their lives and therefore integral to them. The handicrafts of India are a good example. In the rural India of old, craftsmen produced articles of everyday use, and "everything was hand-wrought and everything down to the cheapest tool or earthen vessel was therefore merely a work of art." The skill of the Indian potter of pre-history is evidenced by the excavations from Mohenjodaro and Harappa.

In fact, spinning, weaving and dyeing are among the oldest and best known of Indian handicrafts. Although a highly organized textile industry exists in India today, there are 2.5 million handlooms in the country and, between them, they employ ten million weavers. They produce colourful materials of unique designs, which are often preferred to mill-made textiles, and provide clothing for a third of India's population. Egyptian mummies are said to have been swathed in muslins from India and Indian brocades and muslins were sold in the markets of Asia and Europe. Cotton fabrics have been found at Mohenjodaro and the figures of Ajanta are draped in silks and muslins.

Kamkhwabs are silk fabrics which are brocaded with gold or silver thread to produce striking patterns. The moon and stars and a peacock's head are some of the more popular motifs used. Though crude machines are employed to draw out the metal, the wire is thinner than the human hair. The same loom is used to produce a fabric of the simplest design or a bed-cover with an intricate pattern of a dozen colours plying across the warp and the woof. Banaras in U.P., Murshidabad in Bengal, Ahmedabad and Surat in Bombay and Tiruchirapalli in Madras are famous centres of brocade weaving.

Mysore produces georgettes, chiffons and tissues of high quality. Kashmir also makes a variety of silks. Saris in a multitude of pleasing patterns are woven in Murshidabad. Surat specializes in silks and satins, while Rajputana makes very fine gauze which women use for *dupattas*. This piece of colourful cloth adds charm and grace to the bright costumes of women in the north. Originally used to cover the head, the needs of modern life have invested it with a new function. It is now worn round the neck and across the shoulders, the two loose ends hanging at the back.

The principal weaving centres for fine cotton during the medieval period were Dacca, Masulipatam and Pattan, noted respectively for muslin, chintz and *pitambar*. The most famous weavers were those of Dacca, and their muslins are said to have been as thin as a spider's web. When the material was spread out on the grass to bleach, it was invisible in the light of the sun.

Handloom-weaving is still a flourishing industry in many States. Fine *kheses*, a sort of blanket-cum-mattress, and *lungis*, a broad-checked men's dress tied round the waist for informal use, are made in the East Punjab; *jamdani* (figured muslin) is a speciality of Bengal. Cotton shawls are woven in Assam and Manipur. Examples of beautiful embroidered textiles are the *muga* silk of Banaras, the satin-stitch *phulkari* of the Punjab and the *kanthas* of Bengal.

The Indian dyer has a passion and genius for colours.

From the saffron-coloured, pleated skirts and blue veils of the *jatnis* of Delhi to the glowing reddish-brown of the *kumbi* women of the Deccan, we see everywhere the perfection of the dyer's art. The process by which the *patola* silk of Baroda is made is as complicated as it is fascinating. The technique of "double tied resist-dyeing" (*bandhan*) is used and before weaving, the warp and weft are dyed separately according to a pattern. The favourite colours are soft, deeptoned madder red, golden yellow, jet black and sometimes bottle green. The rhythmic design and the characteristic blending of colours have a very pleasing effect on the eye. This technique of tie-dye is used for muslims, chiefly in Jodhpur and Jaipur.

Calico-printing is a widely practised art in India. The counterpanes and shawls (*fard*) of Lucknow, Kanauj and Farukhabad and the printed saris of Amritsar are good examples. The calicos of Sambar in Jammu are of Persian

Brocaded pallu of sari, Banaras



design and are used mostly as wall drapings, floor coverings and canopies. Jaipur fabrics are dyed on both sides with the patterns so cleverly printed that they do not have a "wrong side." Jodhpur calicos are cut up into strips and sewn together to make the skirts for the women of Rajputana.

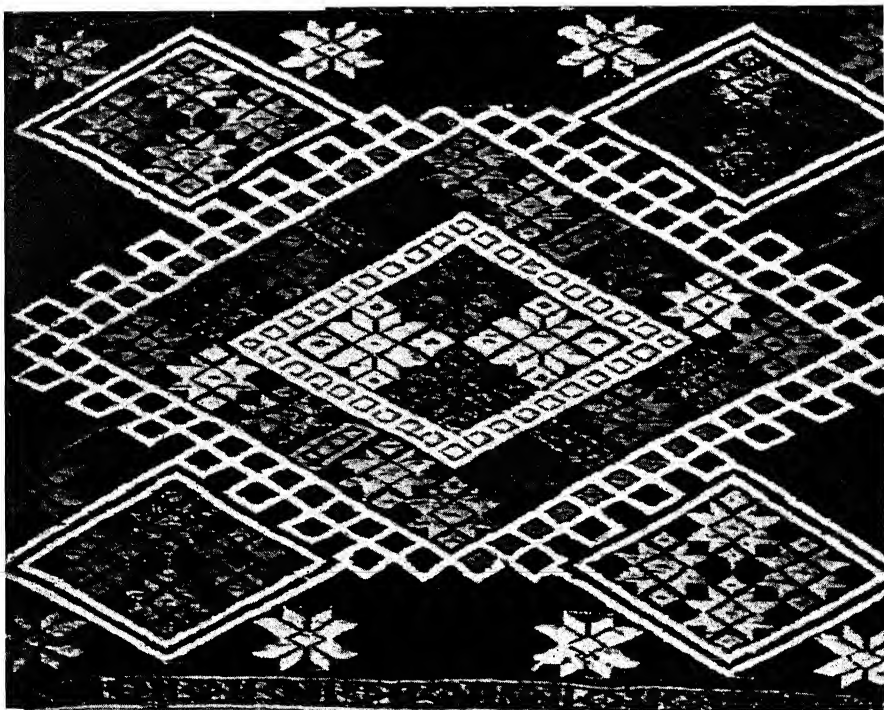
The chief woollen fabrics of artistic merit are those made of *pashm* wool, called *pashmina*. Kashmiri shawls are famous for their delicate workmanship.

CARPETS

Carpet-weaving is another ancient Indian industry. Besides Kashmir, Amritsar, Jaipur, Bikaner, Agra and Warangal in Hyderabad are well known for their beautiful carpets. A carpet from Mirzapur has behind it a tradition of skill going back to the days of Akbar. Quality wool is washed, teased, carded and then spun by hand. The skeins of wool are usually dyed in vegetable colours. The carpet loom has a vertical warp of cotton thread to which knots of woollen yarn are tied in a particular design. The human eye cannot follow the amazing quickness with which the weaver ties the knots. The design is drawn on a graph sheet and the instructions are sung while the carpet is woven. After a row of knots has been tied, the uneven pile is clipped with a pair of scissors to give it uniformity and a smooth touch. At times the weaver takes over a week to finish a yard in a carpet of exceptional quality.

METAL WORK

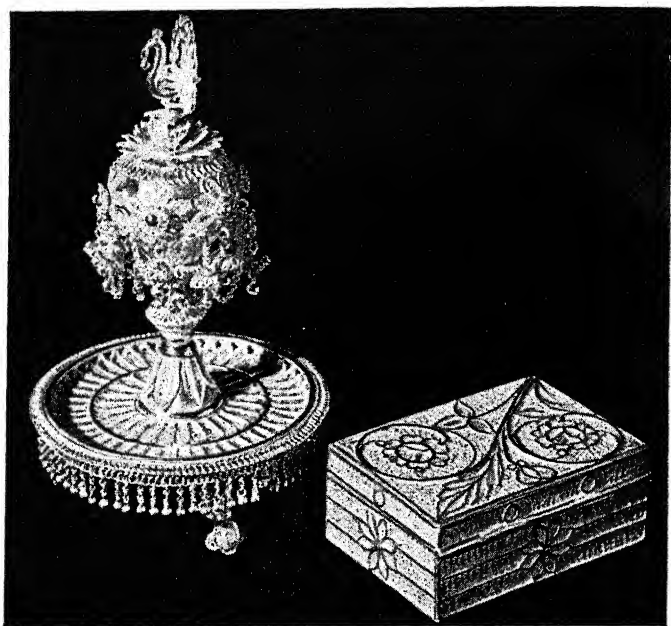
The *cire perdue* process of casting copper and bronze was perfected in the South. The striking bronzes of South India were inspired by Saivism, and the alloy originally used was of gold, silver, copper, lead and tin. Hyderabad excels in *bidri*-ware and metal pots and jugs are inlaid with silver sheet and wire. Apart from the variety of its designs, the beauty of *bidri*-ware lies in the striking contrast between the black base and the inlaid metal. The art of enamelling on metal, known as *minakari*, flourishes in



Textile embroidery from Sanda, Calcutta Museum

Banaras, Delhi, Lucknow, Rampur, Alwar and Kashmir, while Jaipur produces the best enamelled jewellery. In these places, the metal is chased before it is damascened; the repousse method is preferred in Kashmir.

Engraved brass-ware with flowers, landscapes and jungle scenes as motifs comes chiefly from Jaipur, Moradabad and Banaras. Among the various styles in use for embellishing gold and silverware, the *swami* style is the most important. It is composed of mythological medallions and canopied niches in imitation of the encrusted style of work characteristic of South India. A very interesting branch of the silver and goldsmith's craft is the filigree which is practised mostly in Cuttack.



Filigree from Orissa

STONE CARVING

Inlay and *jali* work in marble are among the more important stone-carving industries of India. The Taj Mahal is the most outstanding example of the Moghul art of inlaying marble with semi-precious stones, such as agate and jasper. Samples of intricate *jali* or fretwork in marble and sandstone are to be found in many parts of India. The chief centres of stone-carving are Rajputana, Central India, Delhi, U.P., C.P., Orissa, Bihar, Bombay and South India. They produce wall-brackets, flower vases, candlesticks, chains, lamp-posts, etc., using sandstone, marble, alabaster, soap-stone and pebbles. In Jaipur, dagger-handles, beads, buckles and necklaces are made from rock crystals. In

Kashmir, turquoise is used extensively to make jewellery. The green jade is used to make chess tables, *surahis* and tumblers.

POTTERY

The ornate pots of Gwalior and Khurja are elegant and inexpensive. The pots from Alwar made of fine clay are so thin that they are called *kagazi* (meaning "like paper"). In Aligarh pottery, the design is moulded on the surface by the fingers before it is fired. Azamgarh, Ratnagiri and Madura are best known for their black pottery. Painted pottery is largely produced in Kotah, Lucknow, Jullundur and Salem. Khurja and Rampur produce glazed rose-bowls, vases, dishes, pitchers, etc., of deep blue with the pattern moulded on the surface.

Of painted pottery there are two varieties. One is painted or stained before firing, and the other painted,

Specimens of Bidri ware, Hyderabad





Ivory carving,
Trivandrum

lacquered or stained after firing. In Madura, the stained surface is smeared with lac.

Santiniketan is experimenting with paintings in dark colours on brown glazed pottery. It is reviving some of the old motifs, such as the fish, the swastika and the crab.

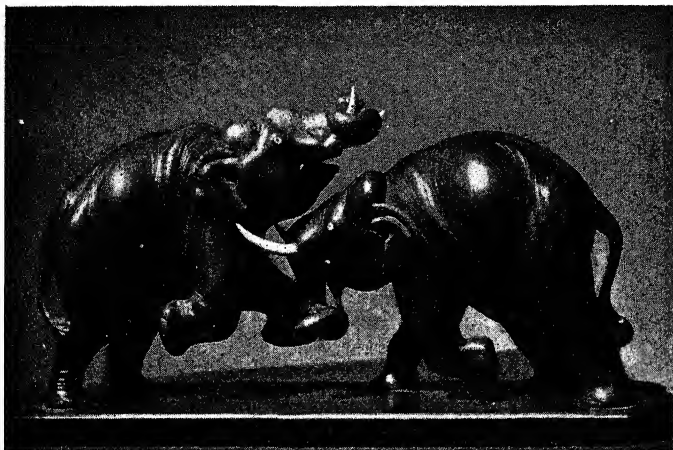
WOOD

Kashmir in the north, Mysore and Travancore in the south, Rajputana and Gujarat in the west have characteristic designs of wood-carving. The walnut woodwork of Kashmiri craftsmen is highly intricate and elaborate. They make folding screens, tables, cabinets and picture frames.

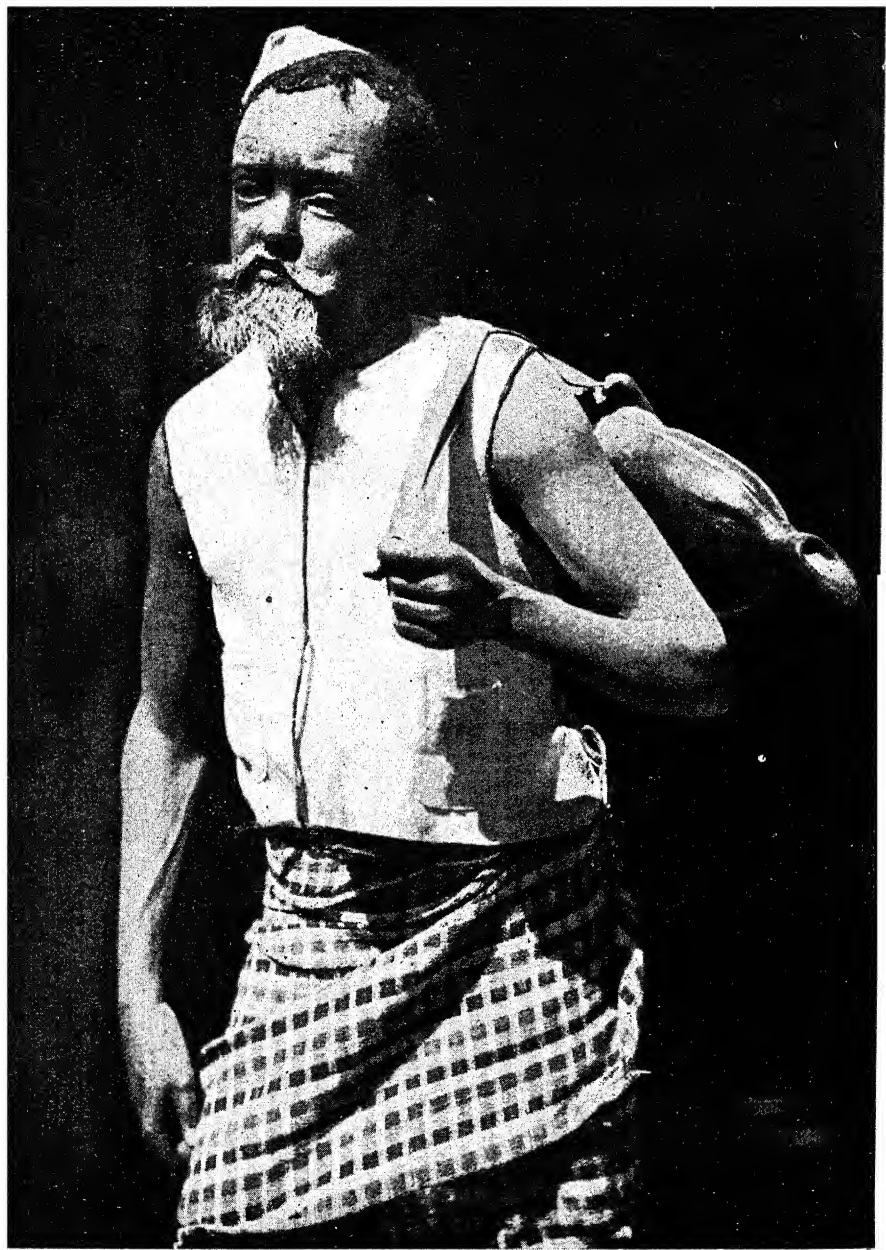
Sandalwood is used in Mysore to make highly ornate articles of common use. Flowers, animals and deities are the motifs usually employed and the smallest miniature is as sharp and vivid as a life-size sculpture. At Jullundur, wood is inlaid with ivory and *shisham* wood with brass. In Manipur, copper and brass wire are used for inlaying.

IVORY

The tusk of the elephant, even more than wood, is an ideal medium for the carver's art. The ivories of Travancore and Mysore are characterized by intricate and delicate craftsmanship. The ivory idols of gods and goddesses succeed in catching the authentic moods and expressions of those legendary figures. Some fine pieces of ivory are also made at Murshidabad and Cuttack. One of the striking ivory panels produced in South India has found a place in the National Museum of Florence. Utility goods of ivory, such as combs, caskets, cigarette boxes and chessmen are to be found in shops all over India. The best



Rosewood elephants from Mysore



Clay toy from Krishnanagar

example of inlaid ivory may be seen in the Golden Temple of Amritsar.

TOYS

Made of painted clay or wood, metal or cloth, toys are of the essence of folk-art. They are made mostly to amuse children and the skilful potter makes quaint toys for the village fair. Richly dressed cloth-dolls made by women are used in marionette shows which are a feature of Indian village life. Their bright trappings and durability make cloth toys popular everywhere. Excellent painted toys of baked clay are made in many districts of Madras, Bengal and Uttar Pradesh, while wooden and metal toys are popular in all parts of India.

JEWELLERY

Jewellery of gold and silver, patterned exquisitely and studded with diamonds, rubies and other precious stones, is an ancient art in India and each State has characteristic designs and patterns.

PAPIER MACHE

Lavishly painted *papier mache* products, such as bowls, powder-boxes, trays, vases and lamp shades are made in Kashmir.

CHAPTER XXX

DANCING

DANCING occupies a unique place among the arts. Combining action, song, melody, rhythm and harmony, it offers the most complete expression to the cultural life of a people. In India, it forms an integral part of living, having both a spiritual and a social significance. The realization of spiritual ends through the exercise of the senses is, generally speaking, the motive behind all Indian art.

Indian dancing did not exist as an independent art; it acquired meaning only as an element in man's relationship with God. Originally dancing formed part of the Vedic ritual; it was accompanied by the chanting of sacred hymns in rites solemnizing sacrifices, marriages and other sacred occasions. As it developed, it fell upon the *devadasis* as a sacred duty. These *devadasis* were vestal virgins attached to the temples and they worshipped the Lord by dancing for him. Owing to economic reasons, this sacred calling lost its nobility and the art suffered a decline.

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Intricate footwork is an integral part of all Indian dancing. In general, it varies to suit the *mudras* (gestures) which symbolize the emotion or idea to be communicated. Footwork is governed by *talas*, i.e., by a system of timing which is emphasized by stresses or beats. The dance is arranged according to a certain rhythm with a number of fixed beats. In between these beats, the dancer provides



Rukmini Devi in a Bharata Natyam pose

with his footwork what are known as bell-idioms. These bell-idioms have no meaning as such, but convey an inner rhythm of their own, the music so created contributing towards the total effect. Thus all the three—the *mudras*, facial expressions and footwork—converge into a unity of expression.

There are four major schools of dancing in India, the Bharata Natyam of Tanjore, the Kathakali of Malabar, the Kathak of North India and the Manipuri of eastern India.

BHARATA NATYAM

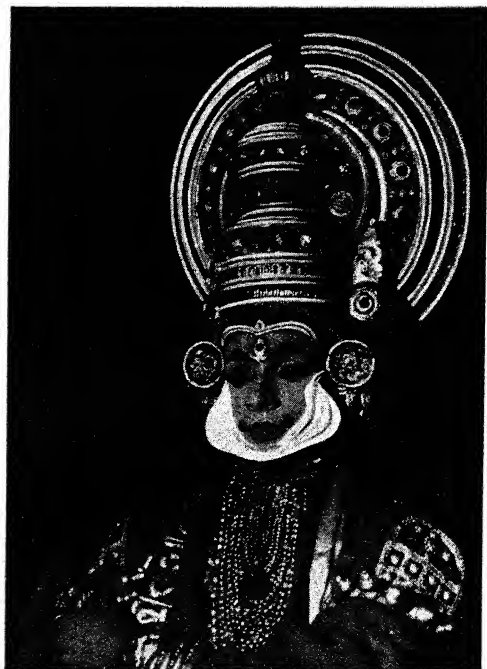
The Bharata Natyam is the most important of the classical dances, because of its religious associations. It has a highly intricate technique and its own rigid code of style and gesture. Originally, *devadasis* performed it in temples as one of the rites of worship. With the falling off of the *devadasis*, Bharata Natyam also waned. Happily, however, recent times have brought it to the fore, but

it does not suffer any more from an exclusive religious purpose.

This dance consists of five main items. Beginning with *nr̥it* or the enactment of graceful poses and gestures, the dancer passes on to a rendering of the ideas in pantomime ending with an erotic motif, usually an imitation of love play among the gods. Curiously enough, the incandescent physical love of the gods depicted by Bharata Natyam has a devotional character. A single performance of this dance lasts as long as four hours. There is no abrupt break between the various items, and the music which continues is provided by the *mridangam*, cymbals and the *tambura*, a later addition. Costumes are so chosen as to create an effect of exalted splendour. Rukmini Devi, Shanta, Ram Gopal and Mrinalini Sarabhai, to mention only a few, are among the well-known exponents of modern Bharata Natyam. They have simplified its elaborate technique, and occasionally employ it for secular themes.

KATHAKALI

Kathakali is essentially a pantomime dance and may be regarded as the counterpart of the ballet in the West. Acting plays as much a part in it as pure dancing. It is generally performed in the open and usually lasts a whole night. The themes chosen are legends from Hindu mythology in which some of the characters assume super-human dimensions. The most elaborate make-up is therefore employed. Great skill and ingenuity in the use of colours is displayed in the facial masks which suggest beings from another world. The effects produced are exaggerated and, were it not for their poignancy, even grotesque. The costumes, again, show a profusion of variety and colour, while the orchestra is a simple one, consisting of drums, cymbals and two singers. These singers pass lines of the dialogue to and fro between themselves while the dancer supplies the imitation. Of scenic arrangements, there are almost none, for the actor is expected to create the necessary effects by his skill in



suggestion. The earth and the sky form the stage against which the Kathakali is performed. The choice of its themes and the simplicity of its arrangements give Kathakali the character of a folk-dance.

KATHAK

The Moghul court with its love of ease and pleasure has left its mark upon Kathak. It is the one Indian dance which has entertainment for its only objective. The Kathak has not the wide range of gestures, movements and poses which characterize Bharata Natyam and Kathakali. Its most important characteristic is not its technique but the vitality of the dancer, the wild joy of living that finds

expression in it. It is divided into two parts—footwork and gestures. The swiftness of the footwork determines the skill of the dancer. The gestures are comparatively less elaborate and are supplemented by facial expressions. Its subject matter is drawn from the Radhakrishna legend, but, quite as often, simple, pastoral themes are also adopted. The Kathak is mainly a *lasya* art (*lasya* is a feminine dance as opposed to the *tandava* which is danced by men) and from its corruption has sprung the Indian *nauch*.

MANIPURI

Manipuri is the dance of the nature-lovers. It celebrates the diverse facets and moods of nature—the changing seasons, the vernal breeze, the winter's haze, the warmth-giving sun and the monsoon. Concerning itself as it does with nature, it is widely enjoyed by the rural people and is thus a folk-art. Incorporated into the nature theme is the *ras leela* dance of Krishna. In Manipur, the home of this dance, every village has a temple dedicated to the dancing saint or to Radhakrishna and attached to each one of them is a dancing chamber.

The Manipuri dances are for both male and female dancers. The costumes are very picturesque. Tiny mirrors of various shapes cover the skirts, and they flash and dazzle as the dancers whirl around. Music is provided by the *mridangam*, the *dholak* and the *khol* (all percussion instruments). Gentle swaying movements and quick rhythmic steps distinguish this style of dancing. Village girls, especially from the hills, are its most popular exponents. Among a bevy of girls, the only male dancer is the boy who plays the part of Krishna.

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Uday Shankar and a few others have imbibed and borrowed from all these traditions and evolved a technique of dancing which preserves the purity of the classical tradition,



Uday Shankar and his troupe

if not its preoccupation with detail and technique. Several academies and institutions in the country impart training in the different systems and their modern variants and the dance in India is thus regaining lost ground.

THEATRE

IN the palaces and temples of ancient India, Sanskrit plays were performed to entertain both the royalty and the people. The oldest and the most developed dramatic art of India was the dance-drama in which religious and philosophical concepts were interpreted through song, dance and gesture. *Natya* and *nataka*, Sanskrit words meaning drama, come from *nritya*—dance. While dancing was an essential element of drama, music and song added a note of lyrical piquancy to situation and setting. But the exclusion of tragedy and the need to conform to moralistic virtue imposed severe limitations on the Sanskrit theatre. The Hindu theatre, however, displayed a wider range in choice of theme and treatment. Skits, farces, sparkling comedies and intense melodramas comprised its repertoire. The use of properties was symbolic and the absence of scenic effects made for a versatile histrionic technique. As the most subtle interplay of emotions was conveyed through facial expression and gestures, the need for masks was precluded. With their exquisite idealism and idyllic setting Kalidasa's *Shakuntala* and Shudraka's *The Little Clay Cart* are typical creations.

With the passing of the Hindu kingdoms, the dramatic tradition died in India. Sanskrit plays continued to be studied in schools, but were never staged. Operatic plays performed by village bands now became popular. In these plays the compact construction and consistent

characterization of Sanskrit drama were replaced by haphazard incidents and farcical devices. Embodying mythological themes, they were either improvised by amateurs or performed by itinerant professionals. They were enacted in the open; the play started at nightfall and ended in the small hours of the morning. There was, of course, nothing like a scenic background, but the plays gained colour and atmosphere in the glare of the torches under a starlit sky. Even today the medieval tradition survives in the people's preference for characters and incidents from the *Mahabharata* and the *Ramayana*, and their love of music and song.

In the latter part of the nineteenth century, the Indian theatre came under European influence. Calcutta led the way with scenes from Shakespeare's *Julius Caesar*. The next venture, *Othello*, was the first English play to be presented by a cast composed entirely of Indians. Then followed *Henry IV*, *The Merchant of Venice* and other plays like *She Stoops to Conquer* and *Beaux Stratagem*. Thanks to the generous help of Dwarkanath Tagore, the grandfather of poet Rabindranath, the first English theatre in Calcutta became possible. It was, however, in the hands of playwrights like Madhusudan Dutt and Jyotirindranath Tagore, who adapted freely from Greek, English and French sources, that the Bengali stage assimilated Western influences. In 1872, Girishchandra Ghosh organized a National Theatre which, along with other similar societies, staged adaptations from Indian and English classical sources as well as historical and social plays. Later, plays by Rabindranath Tagore and Dwijendra Lal Roy dominated the Bengali stage. In consonance with the spirit of the time, Tagore broke away from English influences, and created new literary forms. His dramas set fresh standards in form and content.

Though the *nautanki* and the *ras*, folk forms of the drama, were popular in the Hindustani-speaking areas, they did not have a theatre as such. This can be ascribed to the fact that the Moghuls, who encouraged the other arts, did not approve of the drama for religious reasons. But with the

coming of the English, the impact of European influence gave new life to Indian drama, and producers adapted freely from Shakespeare, Ibsen and Shaw. It was from Shakespeare that the Indian stage took over romantic tragedy. In more recent times, the plays of Khwaja Ahmed Abbas have attracted audiences in northern India. But the Hindustani stage owes its most outstanding contribution to Prithvi Raj Kapoor who has produced a series of plays combining the poetry and idealism of Tagore with the stagecraft of Uday Shankar. His themes are mostly drawn from contemporary life.

In western India, the Maharashtrian stage adapted the comedies of Moliere to the contemporary setting, while younger dramatists like Vibhakar and Varerkar have written Marathi plays on social themes. The Maharashtrian stage belongs mostly to the middle and working classes, and short plays on subjects touching their daily lives are being produced by the Natya Niketan, a group of artists and technicians.

In Gujarat, R. L. V. Desai has contributed plays on domestic and social themes that have the bare, stark intimacy of Ibsen. R. Udayaram has translated the Sanskrit classics, and his play *Harishchandra* was very popular. While K. M. Munshi's literary dramas have also enjoyed considerable success, C. C. Mehta has brought a new idiom and technique to modern Gujarati drama. The experiences of the common people form the subject matter of his plays. *Ag-Gari*, one of the best known, depicts the life of railway workers.

In southern India, the Tamil stage came into being in Tanjore district in 1870 when various dramatic troupes travelled from village to village performing in improvised theatres. *Valli*, *Kovalan* and *Harishchandra* were among their more popular plays. In these and other plays, the accent was on vocal music which quite often had no relevance to the play. It was in Andhra, partly under the influence of Bengal, that modern forms were evolved. The zeal for social reform which swept over the arts and



Ramlila Ballet by New Stage Group of Bombay

literature in the beginning of the twentieth century found a ready vehicle in the drama. Ancient village forms were modified to suit the new writing.

About two years ago, a federal organization, known as the Theatre Centre (India), was set up. Its main object is to encourage drama in the regional languages and to present to the people of India and the world the various types of Indian drama. The Theatre Centre has 42 affiliated groups, and it maintains contact with them through 11 local centres situated in the various States. Being primarily an administrative organization, the Centre provides the liaison between the theatre groups in the country and similar organizations abroad. It is itself affiliated to the International Theatre Institute.

In New Delhi, India's capital, and other metropolitan cities, the theatre movement has received a fresh impetus at the hands of highly talented eclectic amateurs. Plays by Shaw, Jean Paul Sartre, Priestly, Oscar Wilde and other moderns are staged simultaneously with plays by Shakespeare, Sheridan, etc. The capital has a busy theatre season, lasting about six months in the year, when a programme of plays in English is often usefully dovetailed into a series of Hindustani plays, either adapted or translated from Western sources. Quite as often, Hindi plays by renowned Indian playwrights are also staged.

MUSIC

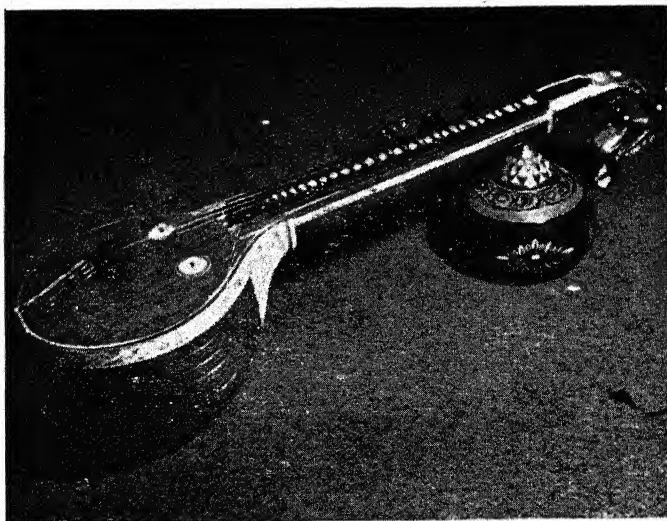
ONLY Egyptian and Chinese music have a tradition comparable to Indian music which has been cultivated as a living art for nearly three thousand years. A proper recitation of the Vedic hymns was considered essential to musical accomplishment and Buddhist and Brahminical scriptures often speak of a highly developed musical art which was in use mostly for temporal purposes. It was during the fourth and fifth centuries, the age of the Guptas, that Sanskrit literature entered its most fruitful phase and Bharata wrote his memorable treatise on the theory of music and drama.

The ancient music of India has been handed down from the master (*guru*) to the disciple (*sishtya*) through the generations and an intimate and sacred association between them was considered intrinsic to the inculcation of all Indian art. In the olden days, Indian music was sung in the royal chamber where the patron was content to hear the artist sing in response to an inner creative urge. Or, the song was heard in the sanctum of a temple while the musician offered his devotion to God. The public concert was unknown and this chamber music did not have to subserve popular taste. A guild of hereditary musicians thus grew up under the protection of an aristocratic society for its exclusive entertainment.

There are today two classical schools of Indian music, the Hindustani School of the north and Carnatic School of the south. While the music of the north has been subject to Persian and Arabic influences, Carnatic music has preserved the purity of its tradition. The Persians brought with them some of their fine musical instruments and their influence has in the main enriched North Indian music. Otherwise, the differences between northern and southern music are purely one of style.

The immediate reaction of a European to a recital of Indian vocal music is one of perplexity; he finds it both elusive and exotic. This is because the differences between Indian and Western music are fundamental; they relate to content as well as to technique. The devotion and subjectivity of Indian music are both the products of a different cultural atmosphere and its *ethos* has been preserved for posterity in its music. If the European listener wishes to understand the music of India, he should be willing to shed his prejudices and forget the harmony of the concert hall.

Firstly, he should understand that Indian music is a melodic art while Western music is harmonic. Western music is like a vast building where every brick, arch and pillar falls into its appointed place to produce a unity conceived by the architect. Or, it is like a big picture whose various elements blend to produce a well-composed whole. Western music thus impresses its listener as much by its range as by its harmony. The value of a note in Western music is judged by its adaptability to the central harmony. In fact, it serves no purpose by itself. Its meaning is fixed only in relation to the other notes of the chord heard in accompaniment. Even when a Westerner hears an unaccompanied melody, a European folk-song, for example, the music becomes complete to him only when his imagination has provided the implied harmony. This is because European music is a compromise between melodic



Vina

freedom and harmonic necessity. It is harmony that has made the triumphs of orchestration in the West possible.

• By contrast, Indian music is purely melodic. To appreciate it, the ear must be trained to receive pure intonation. Its very nature precludes the concept of harmony, either implied or explicit. In fact, the introduction of harmony would even violate the melodic unity of a song. Melody is a peculiar quality of the voice and the greatest of Indian music is thus vocal music. The highest art is wholly extempore and the Indian musician is a creative artist. In fact, he is at once a singer and a poet. While rendering a particular *raga*, he has considerable scope for improvisation. Unlike the musical artist in the West, whose merit lies in the exact reproduction and interpretation of the works of great composers, the Indian



M. S. Subbalakshmi,
noted exponent
of Karnatic music

musician improvises within the framework of a given theme. To him, a good voice by itself is an achievement of no consequence. What a musician sings is more important to him than how he sings it. It is not that Indian music does not recognize a good voice. Very often a singer uses a beautiful voice to advantage. Again, to the serious-minded singer, the words of a song have no intrinsic meaning of their own except in so far as they enhance or contribute to the music of the song. In this connection Dr. Ananda Coomaraswamy says: "... they [words] are used to support the music with little regard to their own logic—precisely as the representative element in modern painting merely serves as the basis for an organization of pure form and colour." There are certain characteristics of Indian music that follow logically from its melodic nature: the primacy of the melody, a particular relation of the accompaniments to the song, the importance

attaching to improvisation and the absence of any serious concerted music. Another feature of Indian music is its elaborate grace. To the Western observer, who is used to hearing a number of notes simultaneously, grace appears to be a superfluous elaboration, especially when it does not form part of the main structure and is merely added to the note.

Finally, to quote an expert on the relation between melody and harmony: "In Western music, a melodic line is really the top of a surface line of a carefully constructed harmonic structure. Thus in the building up of melody the harmonic implication of substantive passing notes and the relationship of these play an important part. Western melody tends to develop round notes which are harmonically related to the tonic. Indian music . . . is even refractory to laws which govern Western melody."



**Ravi Shankar
with sitar**

The Indian melody is governed by the *raga*. Its nearest equivalent in Western musical parlance would be a "mode." But the *raga* is a more definitive concept. It has been defined "as the melody-mould or the ground plan" of a song which the master first of all communicates to the pupil and "to sing is to improvise upon the theme thus defined." It is a selection of five, six or seven notes distributed along the scale. The notes and their sequence are thus both important and there is no modulation of any kind. Modulation and free change of key are indeed the conditions of harmony as in Western music. In all, there are seventy-two septatonic *ragas* and each of them is the basis of several pentatonic and hexatonic *ragas*.

Some of the *ragas* have an interesting origin. Some like the *Pahari* are derived from folk-songs, while others like the *Jog* are based on the songs of wandering ascetics. Literally translated, the names of some would read as follows : Spring, Evening Beauty, Honey Flower, etc. There are some *ragas* which excite devotional moods and others are amorous in their inspiration.

Bismillah Khan with shahnai



THEME

The theme of Indian music is another respect in which it differs from Western music. A piece of Western music can tell a story or depict an external situation. It is thus the objectified story of an observer beholding a world without. As opposed to this, Indian music is real or relevant only in subjective terms. It employs the method of suggestion and not description. It is therefore no accident that the preponderant theme of Indian music should be human and divine love. Actually, the two were not considered mutually incompatible for they both referred to the intense participation characteristic of valid human relationships. Underlying all classical Indian art, there is a suggestion that the erotic and spiritual instincts in man are essentially allied and derive from a common basis.

MUSICAL INSTRUMENTS

One should not, however, conclude that instrumental music does not exist in India or that it is not highly developed. The variety and number of the musical instruments in use in India rival those of Europe. Of these, the *vina* is probably the most outstanding. Legend has it that the Goddess Saraswati is eternally playing upon her *vina* to amuse her lord and herself. There are two varieties of this instrument in popular use today, one in the north and the other in the south. It consists of a fret-board mounted on two large gourds and seven strings. Four of them actually pass over the frets, the other three serve as a drone to provide a pedal-point background. The instrument is played by a deflection of the strings which are plucked by the right hand and the notes made with the left. It is said to be capable of an infinite number of nuances of microtonal grace.

The *sitar* is a popular stringed instrument in North India. Its invention is credited to a Persian poet at the

court of Alauddin Khilji in the fourteenth century. It has seven strings and is played by metal nails fixed to the player's fingers.

The *sarod* is in common use in Bengal, Uttar Pradesh and the Punjab. It has a deep-seated tone and is played with a plectrum.

The *mridangam* is perhaps the most developed and the most ancient of all the percussion instruments in the country. It served as a drum for chamber music in olden times. It is now used as an accompaniment for both vocal and instrumental music. The *mridangam* of the south and *pakhawaj* of the north are designed on the same principles and differ only in minor details.

RADIO

THE history of Indian broadcasting dates back to 1927 when transmitting stations were erected at Bombay and Calcutta for the first time. After negotiations extending over several years, the Indian Broadcasting Company was authorized by the Government to establish broadcasting services along lines similar to those of the British Broadcasting Corporation. When the company went into liquidation in 1930 owing to financial difficulties, the Government of India took over broadcasting as its own responsibility and on June 8, 1936, the Indian State Broadcasting Service, as it was then called, was renamed All India Radio. The network now consists of 21 stations spread over the country.

THE PILOT SCHEME

On August 15, 1947, when the Indian sub-continent was partitioned, India was left with only six stations which were not adequate to meet the demands of the various linguistic regions of the country. A pilot scheme was therefore drawn up which sought to set up low-powered installations in as many linguistic regions as possible. Following the integration of the princely states with the rest of India, their broadcasting stations were taken over by All India Radio. A few more stations were also added

in implementation of the pilot scheme. Thus, in less than three years, fifteen more stations were added to the All India Radio network.

FIVE YEAR PLAN

Detailed provisions have been made in the Five Year Plan for the development of broadcasting. It envisages the installation of a high-powered short-wave transmitter and 50 kilowatt medium-wave transmitters at six centres in India. Five more stations will have medium-wave transmitters,—some 10 kilowatt and others 20 kilowatt. Eight other stations will each have a one kilowatt transmitter. The plan is estimated to entail a capital expenditure of about Rs. 35 million and a recurring expenditure of Rs. 9 million. Pilot transmitters will be replaced by more powerful medium-wave transmitters and new stations will broadcast on the medium-wave. To inculcate the listening habit in India, A.I.R. encourages the production of cheap receiver sets. Standard specifications have also been drawn up for battery-operated community sets.

The people of India are rapidly becoming radio-minded. The number of licensed radio sets increased from 2,48,274 in 1947 to 6,85,508 in December 1951. Licenses now increase at the rate of ten to eleven thousand a month. The number of community sets in schools and rural and industrial areas has also gone up. At present, there are 5,000 community receivers in operation and of these, more than 250 are installed in industrial areas.

PROGRAMMES

With the provision of additional broadcasting facilities, there has been a corresponding increase in the output of programmes from the various States.

A.I.R.'s special programmes cater for every interest. There are special programmes for women, for farmers and for workers. Immediately after partition, the radio

rendered valuable service to displaced persons who had migrated across the border. News of relatives and friends was broadcast every day and they were kept informed of the Government's plans for evacuation and resettlement. The radio also played a vital role in the "Grow More Food" campaign. In broadcasts directed to rural areas, talks were given on improved methods of farming and other measures to increase food production. Similarly

Broadcasting House at New Delhi



when the elections were in progress, the latest results from the various States were announced every day. A series of talks on the delimitation of constituencies and election procedure were put on the air mainly for the benefit of the unlettered voters. Apart from the plays, recitals of poetry and the like, which form a regular feature of A.I.R. programmes, they are becoming more broadbased by providing a cross-section of the different cultural traditions in the country. In the winter of 1949-50, A.I.R. presented a two-way radio discussion between a speaker in Delhi and another in London. This was followed by a four-way discussion between speakers in India, Australia, England and Canada. These discussions were well received by the listening public. A.I.R. also broadcasts running commentaries on important public events, festivals, test matches and other sports events.

A.I.R. now broadcast 71 news bulletins daily of which 43 are for listeners in India and 28 for those abroad. In the home service, news bulletins are broadcast in 16 languages over a duration of nine hours and 12 minutes. A news bulletin in Konkani is to be introduced shortly.

The External Services of All India Radio broadcast programmes in 12 different languages for 21 hours daily for listeners in various Asian and African countries. A service in English was recently inaugurated for the benefit of listeners in Western Europe. This has been followed by another service in French. The External Services broadcast news in 13 languages, including two Chinese dialects, lasting in all for four hours and 55 minutes.

To study the aptitudes and reactions of listeners and assess the popularity of their programmes, A.I.R. maintains a Listener Research Unit. It elicits public opinion through

a system of "sample surveys," postal enquiries and group listening studies.

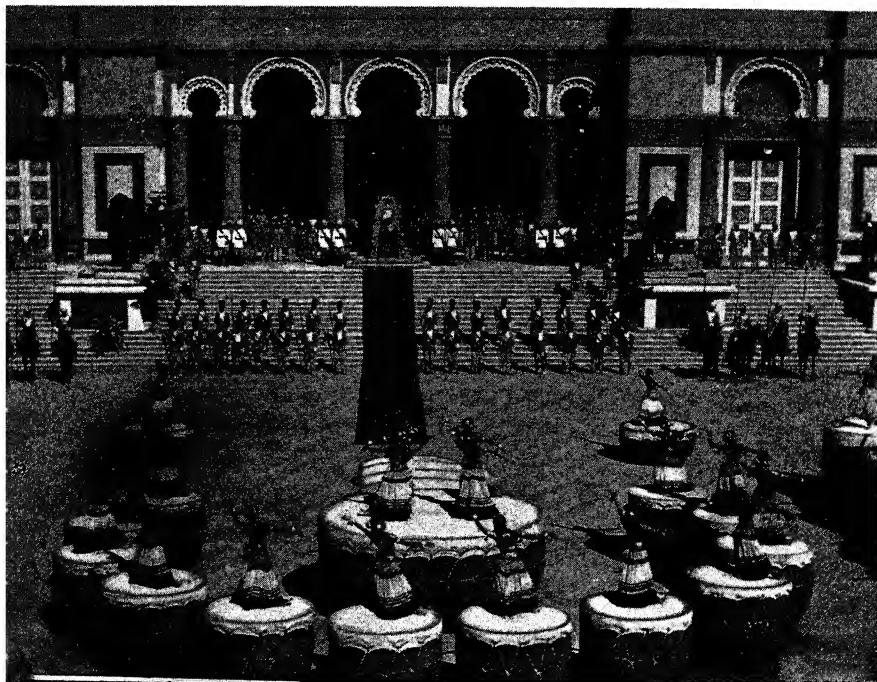
A.I.R. brings out seven journals in which its programmes are published in advance. *The Indian Listener* is published in English and six others in Indian languages. Programme journals are also published in English, Arabic and Persian for the benefit of listeners abroad.

CHAPTER XXXIV

FILMS

THE nucleus of a film industry was set up in India about forty years ago, and today it is one of the biggest industries in the country. Altogether, it employs about 100,000 people, including some of the finest technicians. The capital invested in it exceeds Rs. 400 million. The pictures

Scene from well-known Indian film



produced every year are estimated to bring in a gross revenue of Rs. 200 million. The average cost of production of an Indian film is Rs. 250,000, and a successful picture earns about a million rupees. On an average, a sum of Rs. 120 million thus falls to the share of the exchequer every year by way of censor fees and entertainment and income-taxes, so much so that Bombay, the home of Indian films, has come to be known as the Hollywood of India.

The first Indian film was produced in 1912. It depicted the life of *Harishchandra*, the mythological prince who sacrificed a whole kingdom for the sake of truth. The year 1933, when *Alam Ara*, the first Indian talkie, was produced, marked the beginning of a prosperous era for the industry, and today India is the second biggest film producer in the world. Also, the modern sound-proof studio is a far cry from the make-shift structures of three decades ago. There are at present about 60 studios situated mostly in Bombay, Kolhapur, Madras, Calcutta, Salem and Coimbatore. Twenty-three studios are located in Bombay, 14 in Calcutta and 12 in Madras. There are altogether 250 producing concerns, and about four times as many distributing agencies. There are about 2,500 cinema halls in the country of which 2,000 show Indian films. The touring cinema, which stops at a village for a few months before it passes on to the next, is the sole means of entertainment for the peasant. There are a number of them in the south, and recently open-air cinemas capable of accommodating audiences of three to four thousand have been set up in the metropolitan cities. Approximately, 200 pictures are produced and released every year, using over 200 million feet of "raw film." The Tamil film industry in South India is the second largest in the country, the Hindi being the first. The only other languages in which a considerable number of films are produced are Bengali and Telugu.

The earlier Hindi pictures confined themselves to mythological themes and classical dramas. Owing to the prevalence of rigorous censorship in the past, the

film industry could not play its proper role in the national movement. It was not until late in the thirties that film producers found it profitable to employ social themes for their pictures. The reformatory phase has now passed, and the musical comedy, which suffers from a lack of plot and characterization, is increasingly becoming a feature of Indian films, particularly in Hindi. Their music is made up of both Indian and Western elements. Judged by the norms of either of the classical traditions, they cannot be considered pure, but they are extremely popular. The serious-minded producer is not, however, a rarity. Indian film-goers will, for a long time, remember films like *Achut Kanya*, *Admi*, *Shakuntala*, to mention only a few of them.

In 1949, the Central Government set up an Enquiry Committee to review the affairs of this industry and explore means of placing it on a sound financial basis. The Committee, which issued its report in October 1950, suggested the creation of an autonomous council to regulate its growth. It also suggested that Indian films should concern themselves with less flimsy themes. The Council was also required to set up an institute to train artistes and technicians.

The Films Division of the Ministry of Information and Broadcasting produces newsreels and documentary films dealing with Indian life and affairs. They also secure newsreels from foreign agencies and exhibit them in India. Informative documentaries on cottage and large-scale industries, labour problems, ancient monuments and other subjects are produced in English and a few Indian languages and exhibited throughout the country. Indian documentaries are also shown in 36 foreign countries and some of them have been praised by foreign critics and have won awards. At the international film festival in Czechoslovakia, the film, *Tree of Wealth*, was awarded a prize in appreciation of its inspiring theme. At the Festival of Venice, a documentary on Rajasthan won the first prize in

the folklore and landscape section. By March 31, 1952, the Films Division had produced 114 documentary films and released 180 newsreels.

The International Film Festival of India was inaugurated by the Government early this year. It was the first of its kind in Asia; 23 countries participated and 12 others sent delegations. Fifty-nine feature films and 96 "shorts" in 13 languages were exhibited during the festival and they were seen by thousands of people in India's important cities.

From a film based on Kalidasa's "Shakuntala"



CHAPTER XXXV

PRESS

ON the morning of January 29, 1780, a few copies of a newspaper were sold in the streets of Calcutta for the first time in the country's history. It was the *Bengal Gazette*, edited and published by James Augustin Hicky. The *Gazette* was less remarkable for its restraint than for its pioneering efforts. In partial extenuation of Hicky's "scurrilous and slanderous" writing, it has been said that "he did little more than add spice to a style common elsewhere." An infamous encounter with Warren Hastings landed him in gaol and led to the confiscation of his type.

The printing press in India is, however, much older than its first newspaper. The Portuguese brought the printing press with them in 1556. Yet, till quite late, its use was restricted to the production of Christian literature. But the beginnings of a newspaper press can be traced back to the times of Emperor Aurangzeb who maintained a kind of official gazette. In addition to postings and transfers of government servants, it occasionally published news of public importance.

Loosely applied, the term "Indian Press" conceals a considerable diversity of purpose and content. There was the so-called Anglo-Indian press which, notwithstanding its unpopular political views, is still remembered for its distinctive contribution to the press in this country.

Characterized uniformly by their high standard of production, these newspapers were in the beginning edited and managed exclusively by Englishmen. There was a host of ephemeral publications, owing allegiance to the nationalist cause, edited and administered by Indians, most of whom were men of great determination and public purpose. Undaunted by the swaying fortunes of their ventures, they persevered in the furtherance of the cause of freedom. Finally, there was the vernacular press which grew up against heavy odds. Technical difficulties, the lack of capital and restrictive legislation placed severe limitations on its quality and development.

ENGLISH-OWNED PRESS

Understandably enough, the first journals published in this country were started in Bengal. Being the principal presidency town, Calcutta alone had a British population which was large enough to support new journalistic enterprises. At that time, newspapers were started mostly for the benefit of the British in India, and more often than not, the press was ancillary to the British commercial interests. It kept the Englishman posted with news of his home country and these journals were almost universally distinguished by brusque indifference to Indian affairs. The absence of sympathy for the country and its people was occasionally relieved by a few contributions from disinterested Englishmen who vouchsafed to enquire into the conditions of Indian life.

Hickey's venture was followed by a number of others in quick succession. The most significant of these was the *John Bull in the East*, begun in 1821 by a group of British merchants who sought to usher in badly needed standards of moderation in journalistic writing. It was later changed into the *Englishman* by Stocqueller, its editor at that time. It was the *Englishman* that published

Macaulay's essays written during his stay in India. The paper was controlled by three successive generations of the Saunders family before it was purchased by the proprietors of the *Statesman* in the twenties of the present century and finally merged in it.

With the publication of the *Bombay Herald* in 1789, Bombay became the "veritable cockpit of journalism." The *Bombay Courier* followed soon after, and it retained its identity till 1861 when it was incorporated with the *Times of India*. The other enterprises were mostly shortlived, thanks to the frequent repressive actions taken by the Government against their editors. The *Bombay Courier* and the *Bombay Gazette* which set up high standards in journalism were devoted mostly to the discussion of administrative problems. They counted among their regular contributors several officials of the Government who were then permitted to write for newspapers. The proprietorship of the *Times of India* changed hands more than once before it finally passed into the hands of Messrs Bennet Coleman & Co.

In 1817, the *Friend of India* was started by a few missionaries in Calcutta. The paper was ultimately taken over by Robert Knight who had come to Calcutta to found the *Statesman*. His moderate support of local causes estranged him from his own countrymen, but earned him the esteem of a large body of Indian readers.

The *Statesman* was the first paper to instal a rotary and a linotype machine in 1907. For the first time, newspapers in India became acquainted with the soft, absorbent paper, called the newsprint, which alone could receive an unsmearred impression from a fast printing press.

Hitherto, newspapers in India had not aimed at anything beyond a limited local leadership. Formerly they were printed slowly on flat-bed machines, but owing to the high cost of production, they could not be sold for less than four annas. The Knight Brothers could now afford

to sell it for an anna a copy and its circulation grew apace. From a local organ, the *Statesman* thus suddenly found itself to be a national newspaper. The fact that the *Statesman* had by then established its own cable service from England further added to its popularity.

In 1872, the first issue of the *Civil and Military Gazette* was published from Simla. The concern was subsequently transferred to Lahore and came to be linked up with the *Pioneer* of Lucknow. The fact that Rudyard Kipling was associated with them for some time invested them with a certain importance in retrospect. Conservative in their outlook, they were staunch supporters of the policy and objectives of the Government and did not as such find much favour with Indian readers. Right from their inception, they had voiced the views of the land-owning classes. Similarly, the *Madras Times* and the *Madras Mail*, first published in 1868, were exclusive organs of British conservative opinion.

Long before the coming of independence, the ownership of a majority of these papers had passed into Indian hands. The English population in India was slowly on the decline and Indian and even English readers often found their views unacceptable. There are, nevertheless, a few papers which are even today edited and managed by Englishmen. They have, however, quickly adapted themselves to the changed situation and agreed to play a new role in the affairs of the country.

NATIONALIST PRESS

The development of the nationalist press was conditioned by the political stimulus that gave rise to it. Different people at various times started newspapers with the express purpose of organizing opposition to foreign rule. Some wrote with biting sarcasm of the miserable conditions of plantation labour, while others advanced logically argued cases for the Indianization of the services. As political

consciousness developed, more uncompromising demands for the transfer of power were put forward. There were some who were content with Home Rule and constitutional remedies, but there were others who hinted at a revolutionary change. On the other hand, the papers, whose allegiances were extreme and definite, gave valuable support to the political movement. In spite of their poor technical equipment and the ill-concealed hostility of the rulers, they continued to provide a valuable link between the people and their leaders. Editors were sent to prison without trial and papers were forced to close down. But the nationalist press had an innate vitality and stringent legislation failed to detract from its strength.

Raja Ram Mohan Roy was a pioneer of the nationalist press in India. The *Sambad Kaumudi*, published by him in Bengali in 1821 and the *Mirat-ul-Akbar* in Persian in 1822, were both devoted to a critical discussion of contemporary social life and its reform. At about the same time, Fardoonji Murzban started a daily newspaper, the *Bombay Samachar*. Thanks to its liberal nationalist views, its popularity steadily increased and it has survived into the present day. In 1851, Dadabhai Naoroji, an outstanding man and a founder of the Indian National Congress, started the *Rast Goftar*.

In 1858, the *Shome Prakash* commenced publication in Bengal under the editorship of Iswarchandra Vidyasagar. A keen social reformer, he fearlessly advocated the cause of the peasantry when disturbances broke out in the indigo-growing areas of Bengal. The Indian Councils Act of 1861 sought to associate Indians more closely with the administration of the country. As a result, the politically conscious section in society became increasingly vocal, and newspapers sprang up everywhere. In 1868, the Ghose Brothers founded the *Amrita Bazar Patrika* and their immediate success induced them to shift to Calcutta where

their influence steadily grew. There they aroused the opposition of the Lieut.-Governor who passed a stringent Press Act, making journalism in an Indian language virtually impossible in the province. The *Patrika* took up the challenge promptly and came out as an English newspaper. Owing to the universal unpopularity of the new Act, however, it was soon repealed. In 1879, Surendranath Banerjea assumed the editorship of the *Bengalee* and his persuasive writing won him an immediate following.

With the founding of the Indian National Congress in 1885, organized opposition to foreign rule had crystallized. The newspapers were to a great extent responsible for precipitating concerted action on the part of the educated middle class. Through vivid reporting and outspoken leaders, the newspapers drew the attention of the enlightened middle class to the weak spots of the administration and the appalling poverty of the people.

It was inevitable that the emergence of a broadbased national movement should have led to the growth of an extreme and a moderate wing within the Congress. Thus, for instance, Bal Gangadhar Tilak, Bipin Chandra Pal, Aurobindo Ghose and Lajpat Rai all belonged to the militant school of nationalism. Tilak used the *Kesari*, a Marathi journal founded by him, to propound a new method of struggle against the authorities. In Bengal, the *Bande Mataram* in English, the *Jugantar* and the *Sandhya* in Bengali came to the fore with their advocacy of extreme methods. Together, they strongly opposed the proposed partition of Bengal and lent valuable support to the Swadeshi movement.

The differences between the extreme and moderate elements came to a head at the Surat session of the Indian National Congress in 1907. Sir Pherozeshah Mehta and Gokhale who represented the liberal wing of the Congress felt the need for an independent organ to propagate their views. Accordingly, the *Bombay Chronicle* was started with

Benjamin Guy Horniman as editor. Though the *Chronicle* was meant to be a liberal paper, Horniman often excited the wrath of the bureaucracy through his outspoken writing.

Gandhiji and the Liberals decided to support the British Government and its policies during World War I. Tilak dissented and sought to secure immediate self-government through a country-wide agitation. He received considerable support from Mrs Annie Beasant, who purchased the *Madras Standard* and renamed it *New India*. Her writings carried an irresistible emotional appeal and were probably among the best to be written in support of the Home Rule Movement.

During World War I, several newspapers came in for harsh treatment at the hands of the Government. Maulana Mohammed Ali, editor of the *Comrade*, and Maulana Abul Kalam Azad, who was then editing the *Al Hilal*, were interned without trial. Thanks to punitive legislation, the nationalist press suffered a severe setback. The moderate section of the press, represented by Surendranath Banerjea, C. Y. Chintamani and Madan Mohan Malaviya, however, kept the movement alive by avoiding a serious clash with the over-sensitive authorities. With a formidable memory for constitutional precedents, Chintamani, in particular, was able to render signal service to the nationalist cause.

The satyagraha movement against the Rowlatt Act led by Gandhiji, Motilal Nehru, the Ali Brothers and others contributed to a further expansion of the nationalist press. Gandhiji took over the *Young India* from its editors, and along with the *Harijan*, it subsequently became the authentic organ of Gandhian ideals. In 1919, Motilal Nehru founded the *Independent* at Allahabad and the *Aj*, a Hindi daily, also came out at the same time.

When the non-co-operation movement came to an end, C. R. Das and Motilal Nehru formed the Swaraj Party within the Congress. They wanted to carry the battle against the Government into the legislatures while the

others were against any form of co-operation with the Government. The Swaraj Party acquired the *Hindustan Times* with K. M. Panikkar as its editor, and for some time the paper propagated the views of Das and Motilal Nehru. The *Swadesamitran*, a Tamil daily from Madras, the *Forward* of C. R. Das from Calcutta and later the *Hindustan Times* belonged to the Swarajist group.

In the south, Rajagopalachari and Prakasam developed the *Swarajya* into an effective weapon for the Congress. It was also at this time that the *Hindu* became a powerful influence in Madras. While according critical support to the policies of the Congress, it fought clear of partisan loyalties and eventually became one of the most well-edited papers in the country.

In 1930, Sadanand started the *Free Press Journal*, devoted solely to the publication of news of Gandhiji's satyagraha movement.

In the thirties, several newspapers were started to voice the views of the Muslim League, the *Star of India*, the *Dawn* and the *Morning News* being prominent examples. With the transfer of power, they have gone over to Pakistan.

LANGUAGE PAPERS

Despite their vast influence, the English newspapers could not make up for the lack of well-produced and educative journals in the local languages. The history of the language papers is a chequered one and they have advanced considerably both in quality and numbers. The main obstacle to their growth in recent times has been technical. No Indian script except Bengali, Tamil and Hindi has so far been adapted to the linotype machine. For instance, the Persian script in which Urdu is written is totally unsuited to mechanical reproduction. Bengali was the first language which exploited the linotype and much of the prosperity of

the *Ananda Bazar Patrika* and the *Jugantar* is due to their high standards of production. The lack of capital has, however, been a serious handicap to the growth of the language press. Because of their small circulation, inferior production and the unfamiliarity of foreign advertisers with Indian languages and scripts, their revenue from advertisement has also been meagre. Notwithstanding these serious handicaps, it can boast of a number of achievements. Several newspapers have attained a high degree of proficiency. A Tamil weekly from Madras and a daily from Bengal claim the maximum circulation in the whole country.

Today there are over 578 dailies and 2186 weeklies published in India in English, Hindi, Bengali, Tamil, Urdu, Gujarati, Marathi, Telegu, etc. Among the languages, Bengali, Tamil and Hindi papers have several technical and literary journals of a high standard. The English newspapers are geographically well distributed, but not every one of them can claim a nation-wide circulation. Since India is a country of vast distances, each region has its own newspapers in the regional languages and English. A few, however, are published simultaneously from two cities and some of the more important ones among them have a Delhi edition.

The formation of the All India Newspaper Editors' Conference in 1940 and the Press Trust of India in 1948 were important events in the history of journalism in this country. The former was created in order to safeguard the common interests of the newspaper industry. The Press Trust of India was formed in 1948 and is today the most important news agency in the country. It is jointly owned and controlled by the Indian newspapers and Reuters. The other important news agencies in India are: The United Press of India, the Free Press of India, the Globe News Agency, the Associated Press of America, Agence France Presse and the Tass News Agency.

Recently, several associations and press clubs have been formed with the object of improving the conditions of the working journalists.

The following is a list of important daily newspapers in Hindi and English :

HINDI

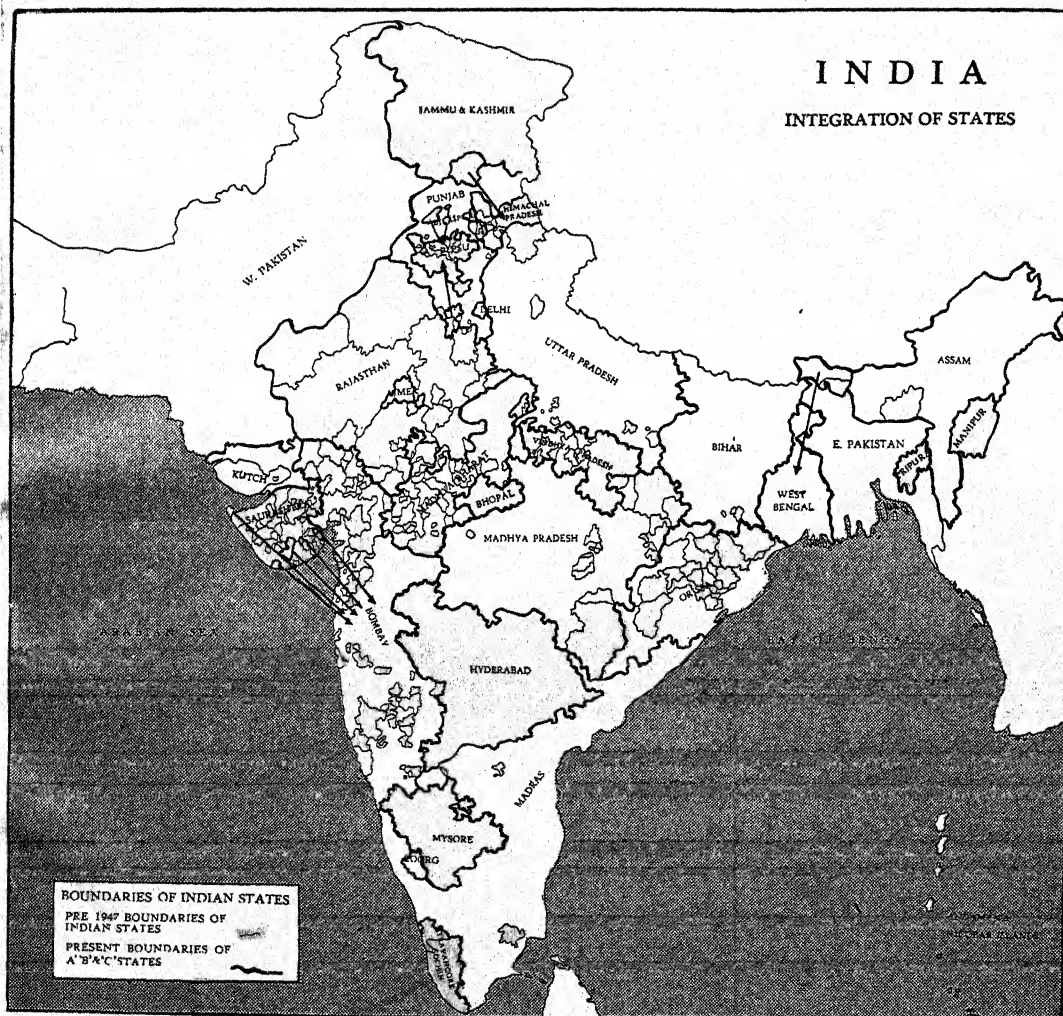
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| 1. <i>Aj</i> , Banaras | 17. <i>Pratap</i> , Kanpur |
| 2. <i>Aryavarta</i> , Patna | 18. <i>Rashtra Vani</i> , Patna |
| 3. <i>Aushman</i> , Kanpur | 19. <i>Sahyogi</i> , Kanpur |
| 4. <i>Bharat</i> , Allahabad | 20. <i>Sanik</i> , Agra |
| 5. <i>Hindustan</i> , New Delhi | 21. <i>Sanmarg</i> , Calcutta and Banaras |
| 6. <i>Indore Samachar</i> , Indore | 22. <i>Sansar</i> , Banaras |
| 7. <i>Jagran</i> , Kanpur and Jhansi | 23. <i>Swadhin Bharat</i> , Allahabad |
| 8. <i>Jagriti</i> , Howrah | 24. <i>Swatantra Bharat</i> , Lucknow |
| 9. <i>Jai Hind</i> , Jubbulpur | 25. <i>Ujala</i> , Agra |
| 10. <i>Lokamanya</i> , Calcutta | 26. <i>Vishwa Bandhu</i> , Calcutta |
| 11. <i>Lokmat</i> , Nagpur | 27. <i>Vishwamitra</i> , Bombay, Calcutta, Patna, New Delhi and Kanpur |
| 12. <i>Nai Dunia</i> , Indore | |
| 13. <i>Nava Bharat Times</i> , New Delhi | |
| 14. <i>Nav Jeevan</i> , Lucknow | |
| 15. <i>Naya Sansar</i> , Patna | |
| 16. <i>Pradheep</i> , Patna | |

ENGLISH

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|---|--|
| 1. <i>Advance</i> , Calcutta | 7. <i>Deccan Herald</i> , Bangalore |
| 2. <i>Amrita Bazar Patrika</i> , Calcutta and Allahabad | 8. <i>Delhi Express</i> , Delhi |
| 3. <i>Assam Tribune</i> , Gauhati | 9. <i>Evening News of India</i> , Bombay |
| 4. <i>Bharat</i> , Bombay | 10. <i>Free Press Bulletin</i> , Bombay |
| 5. <i>Bombay Chronicle</i> , Bombay | 11. <i>Free Press Journal</i> , Bombay |
| 6. <i>Bombay Sentinel</i> , Bombay | 12. <i>Hindu</i> , Madras |

13. *Hindustan Standard*,
Calcutta and
New Delhi
14. *Hindustan Times*,
New Delhi
15. *Hindustan Times*
Evening News,
New Delhi
16. *Hitavada*, Nagpur
17. *Indian Express*, Madras
18. *Indian Nation*, Patna
19. *Indian Republic*,
Madras
20. *Jai Hind*, Calcutta
21. *Leader*, Allahabad
22. *Liberator*, Madras
23. *Mail*, Madras
24. *Nagpur Times*, Nagpur
25. *National Herald*,
Lucknow
26. *National Standard*,
Bombay
27. *Pioneer*, Lucknow
28. *Search Light*, Patna
29. *Sremajeev*, Madras
30. *Statesman*, Calcutta and
New Delhi
31. *Telegraph*, Kanpur
32. *Times of India*, Bombay
and Delhi
33. *Tribune*, Ambala


13. *Hindustan Standard*,
Calcutta and
New Delhi
14. *Hindustan Times*,
New Delhi
15. *Hindustan Times*
Evening News,
New Delhi
16. *Hitavada*, Nagpur
17. *Indian Express*, Madras
18. *Indian Nation*, Patna
19. *Indian Republic*,
Madras
20. *Jai Hind*, Calcutta
21. *Leader*, Allahabad
22. *Liberator*. Madras
23. *Mail*, Madras
24. *Nagpur Times*, Nagpur
25. *National Herald*,
Lucknow
26. *National Standard*,
Bombay
27. *Pioneer*, Lucknow
28. *Search Light*, Patna
29. *Sremajeev*, Madras
30. *Statesman*, Calcutta and
New Delhi
31. *Telegraph*, Kanpur
32. *Times of India*, Bombay
and Delhi
33. *Tribune*, Ambala

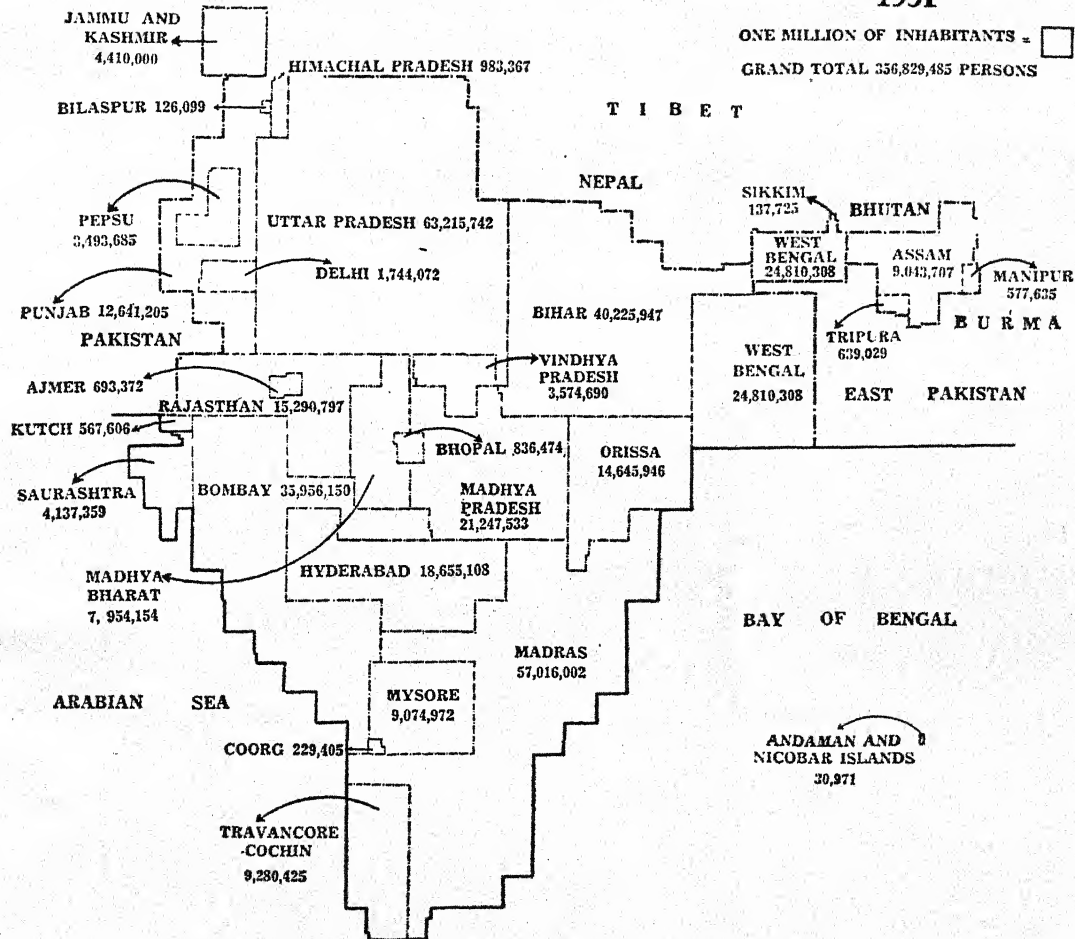


See Ch. 3.

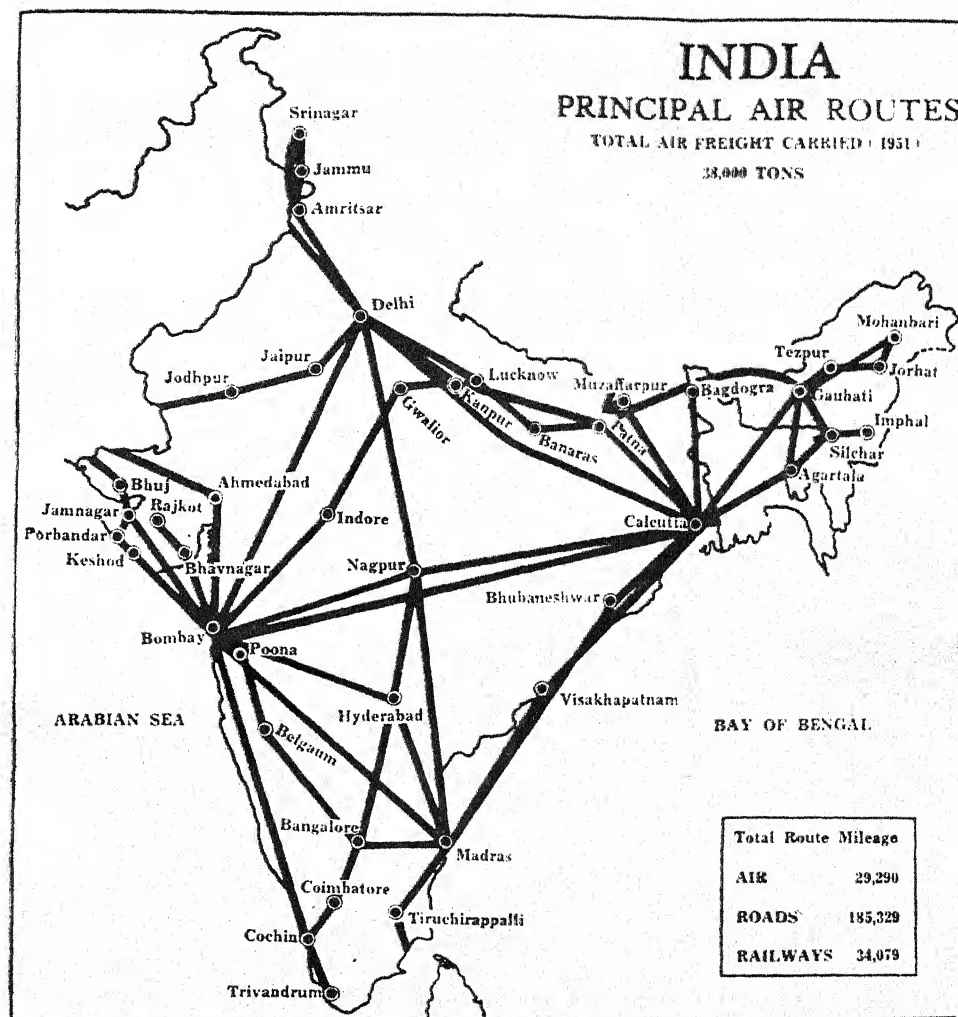
POPULATION OF INDIA

1951

ONE MILLION OF INHABITANTS = 
GRAND TOTAL 356,829,485 PERSONS



See Ch. 7.



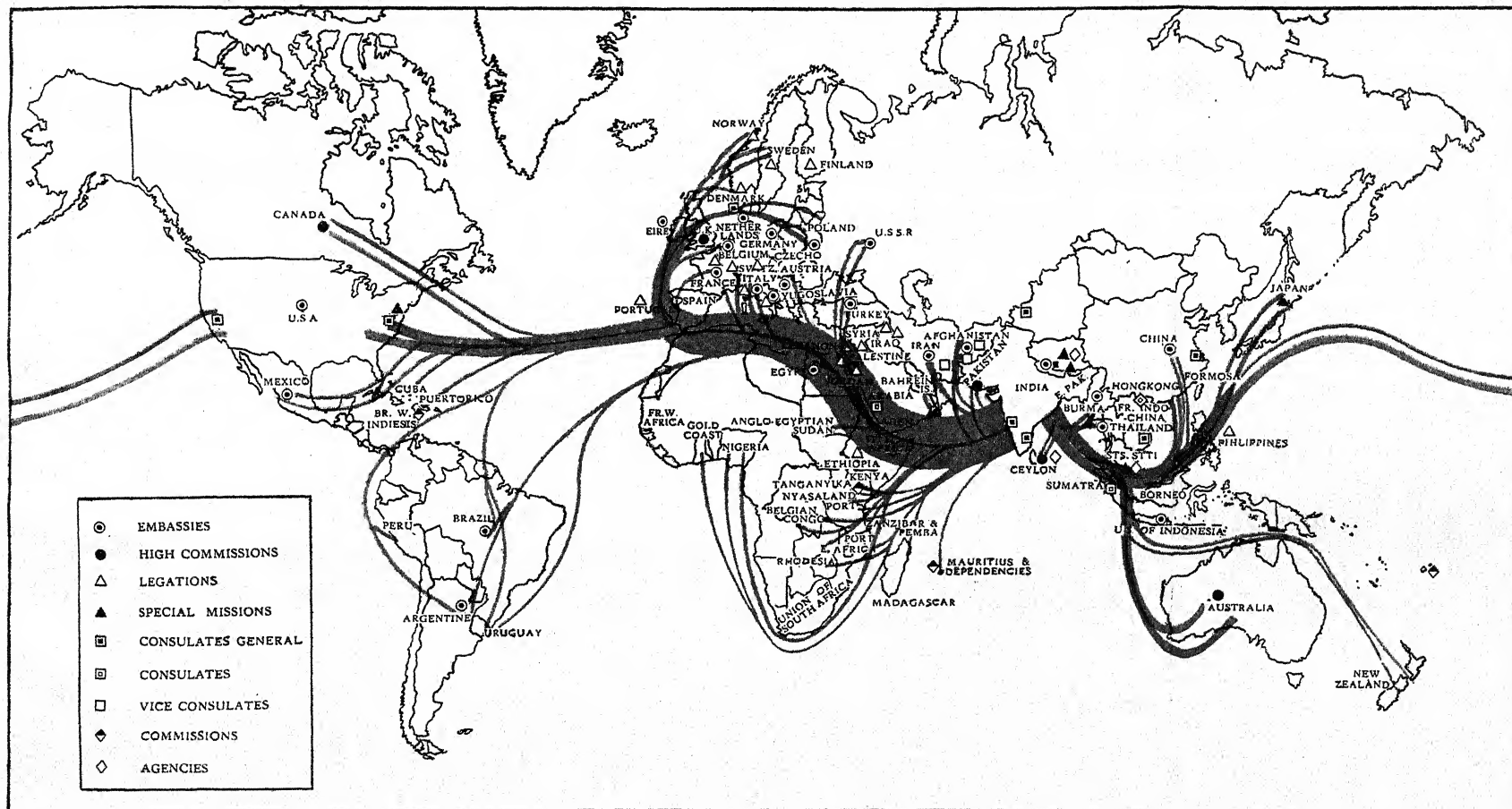
See Ch. 18.

WORLD

(INDIA'S FOREIGN TRADE AND
HER REPRESENTATIVES ABROAD)

IMPORTS

EXPORTS



See Ch. 22.